SYNOPSIS OF THE

Final Report

OF THE

Royal Commission on Venereal Diseases

BY

DOUGLAS WHITE, M.D. (Captain, R.A.M.C.)

With a Preface by

LORD SYDENHAM OF COMBE, G.C.S.I., &c.

PUBLISHED BY THE
National Council for Combating Venereal Diseases,
Bank Buildings, Kingsway, London, W.C.
1916.

COMBINED CONTENTS-INDEX.

PREFACE.

In order that every one who so wishes should be enabled to master the facts elicited by the Royal Commission and the deductions and recommendations based upon them, it appeared to the National Council Executive that a Synopsis of the Report should be prepared.

The work was very kindly undertaken by Dr. Douglas White, who rendered valuable assistance to the Commission by framing a digest of the evidence. He has now accomplished his task, and the result is, as he states, a "systematic abbreviation" from which nothing of first-class importance has been omitted. He has also very wisely included information contained in the Appendices of which he gives a short precis.

I hope, therefore, that this Synopsis will serve a double purpose. It will provide a convenient compendium of the whole subject of venereal disease as elucidated by the recent enquiry, and will thus aid all who have no time to study the Report as a whole. At the same time, the marginal references will enable readers, who are interested in any special branch of this question, to turn to the original for fuller details.

The wealth of valuable information in Blue Books is too frequently lost; because professional men and women, by whom it might be turned to account, are too busy to be able to undertake the continuous study of heavy volumes. The National Council trust that the Synopsis will smooth the way to wider knowledge of these most insidious and dangerous diseases, their effects upon the race, and the means of combating them.

It was impressed upon the Commissioners by many witnesses that this knowledge was lacking, and that the veil of secrecy, which has too long been permitted to obscure facts of vital import to the national welfare, must be withdrawn if a worthy attempt is to be made to cope with a deadly evil. One of the great objects of the National Council is, therefore, to diffuse necessary information in forms suited to different classes of persons who have opportunities of warning, of guidance, and of promoting administrative measures.

The President of the Local Government Board, when receiving a deputation from the National Council, showed that he had fully grasped the need of prompt action at a time when there is grave reason to fear an abnormal spread of disease. He has already taken measures to carry out the principal recommendations of the Royal Commission as regards the provision of ample means of diagnosis and treatment. The success of these measures will depend upon the hearty co-operation of local

authorities and the managers of existing hospitals. For them the facts and opinions embodied in this Synopsis should prove of special value. They will be able to realize the many forms in which venereal disease manifests itself, and the terrible results of congenital infection in causing sterility, still-births, infant mortality, and infirmities which require institutional treatment at great expense to the community. They can judge how far these great evils can be prevented by the application of early and efficient remedies which medical science has placed at our disposal.

The Commissioners explained the reasons which, at present stand in the way of any accurate estimate of the prevalence of venereal disease. It is only by following up many different clues that some idea can be formed of the total number of persons who have become infected either directly or by inheritance. While no absolute figures can be obtained, it is certain that the total is far larger than has ever been recognised, and that the indirect effects can be traced in directions hitherto unsuspected. The diffusion of knowledge will have the effect of opening up new fields of investigation, which may reveal secrets now hid and throw fresh light on matters which vitally affect the future welfare of the nation.

I earnestly commend Dr. White's able compilation to all who are anxious to co-operate in freeing our race from a curse thet threatens its numbers and its vigour in days when both will be sorely needed to enable us to meet the difficult and strenuous years which the future holds in store.

SYDENHAM OF COMBE.

5th August, 1916.

SYNOPSIS

OF THE

Report of the Royal Commission on Venereal Diseases.

AUTHOR'S NOTE

This abbreviated Report of the Royal Commission on Venereal Diseases has been undertaken at the request of the National Council for Combating Venereal Diseases, with the approval of Lord Sydenham, who was Chairman of the Commission and is now President of the National Council.

It is nothing but a shortened Report. The reduction of length has been effected, not by wholesale omissions, but by systematic abbreviation. The paragraphs on the Economic Effects of these diseases, and the Summary of Recommendations, have been given in full. On the more important points the decisions of the Commissioners have been italicised. One or two foot-notes of my own have been inserted by permission.

Some of the information contained in the Appendices has been inserted in the text; a short summary of the Appendices is given at the end.

I desire to thank my friend, Mr. Henry Howell (R.A.M.C.), for his help in making the charts which show the incidence of disease; they are mostly small-scale reproductions of charts contained in the full Report.

It is hoped that by means of this volume the contents of the Report may become widely known both to the interested public and such of the medical profession as have not time to study the original document.

DOUGLAS WHITE,
CAPT. R.A.M.C.,
CONVALESCENT HOSPITAL,
EPSOM.

July, 1916.

Royal Commission on Venereal Diseases.

SYNOPSIS OF THE REPORT.

This Royal Commission was constituted on November 1st, 1913; its membership was as follows: Lord Sydenham, of Combe, G.C.S.I., G.C.M.G., G.C.I.E., F.R.S. (Chairman), Sir David Brynmor Jones, Kt.; Sir Kenelm Digby, G.C.B.; Sir Almeric Fitzroy, K.C.B., K.C.V.O.; Sir Malcolm Morris, K.C.V.O., F.R.C.S., Edin.; Sir John Collie, Kt., M.D.; Arthur Newsholme, C.B., M.D.; Rev. Canon J. W. Horsley; Rev. Dr. John Scott Lidgett; Dr. F. W. Mott, F.R.S.; Mrs. M. D. Scharlieb, M.D.; J. E. Lane, Esq., F.R.C.S.; Philip Snowden, Esq.; Mrs. Louise Creighton; Mrs. E. M. Burgwin. The Final Report was issued on February 11th, 1916, with the conclusions at which the Commissioners had arrived after the examination of 85 witnesses at 86 meetings.

[In the present publication, marginal references are placed in order to facilitate comparison with the full Report.

Abbreviations V D = Venereal Diseases
S. = Syphilis.
G = Gonorrhœa.
L.G.B = Local Government Board
G P.I. = General Paralysis of Insane
R C = Royal Commission]

I.—INTRODUCTION. §§ 1-9.

Previous State Action.

§ 1. Previous action by the State in regard to V.D. has been limited to the Contagious Diseases Acts of 1864, and (amended) 1866 and 1869. They were concerned with the Army and Navy alone, and were applied in certain naval and military centres. They involved the surveillance and medical examination of prostitutes in those localities. A strong popular opposition arose against the Acts; Committees of Investigation were appointed in 1868 and 1869; a Royal Commission in 1870; a House of Commons Committee in 1879. The Reports were lukewarm in favour of the system; public opinion was hot against it; in consequence, the compulsory examination of women was abolished by Order in 1883, and the Acts were repealed in 1886. Since then, no further Acts have been passed dealing with this subject. The present R.C. states that, while they are precluded from considering the policy of the C.D. Acts, they have been convinced by the evidence that no advantage would accrue

from a return to the system of these Acts. The great improvement in the V.D. statistics of the Navy and Army has taken place since the repeal of the Acts.

Apart, however, from Acts of Parliament, certain inquiries have been instituted, whose reports bear on the question.

In 1903 a Sub-Committee of the Advisory Board to the Army Medical Services was appointed to consider V.D. in the Army; in 1906 they reported against the method of compulsory isolation and treatment, and recommended diffusion of knowledge as to the serious consequences of V.D., and the provision of effective treatment to which no stigma should attach. They urge, therefore, that sound methods of treatment should be thoroughly understood by medical men, and rendered readily available in military and civil practice

In 1904 the Inter-Depl. Committee on Physical Deterioration recommended the appointment of a Royal Commission to inquire into Syphilis with special reference to notification and hospital accommodation.

In 1909 the R.C. on Poor Law refer in their Report to the terrible havoc of V.D. on the physique and stamina of the community, and specially to the resulting infantile mortality and bad health of children. They recommend detention or continuous treatment of dangerous persons. The Minority Report considers the effects of V.D. as worse, perhaps, than of tuberculosis, and comments on the refusal to treat the early stages by Unions, Provident Associations and Hospitals.

In 1912 the R.C. on Divorce "can conceive of no cause which more fully justifies an application for divorce than this class of cruelty," viz., communication of V.D. They recommend that communicable V.D. in one of the parties should be a legal ground to the other party for obtaining a decree of nullity within a year of marriage.

In 1913 the L.G.B. Report showed the inadequacy of institutional provision for diagnosis and treatment of V.D. *The need of early treatment was emphasized.*

In 1914 a Departmental Committee made recommendations as to the certification of these diseases for sickness benefit.

§ 2. **Short description of the Diseases: Syphilis, Gonorrhœa, and Soft Chancre.**

§ 3. SYPHILIS is not traced in Europe till the 15th Century. It started in Spain and Italy in 1494; spreading rapidly over Europe, it reached England in 1497. It has remained endemic, with varying intensity, ever since.

Modern discovery for the last 12 years has run a wonderful course. The specific organism was discovered by Schaudinn and Hoffmann in 1905, a work which has been everywhere confirmed. Next came the elaboration of a bio-chemical blood test by Wassermann, by which the presence of syphilis can be proved and treatment regulated.

Later Noguchi discovered the organism in brains of persons dying of general paralysis, proving this to be a syphilitic affection; similar results have been shown in the case of Locomotor Ataxy. Meanwhile, Ehrlich had provided a new method of treatment by arseno-benzol compounds, salvarsan (606) and neo-salvarsan; this, combined with mercury, forms the basis of successful modern treatment.

Syphilis may attack any part of the body to which it is conveyed; it is at first implanted in the form of a local lesion of skin or mucous membrane, from which it spreads mainly by the blood-stream. Since it may attack any portion of the body, clinical diagnosis from other diseases is difficult.

Syphilis may be (1) acquired, by direct or indirect contagion; (2) hereditary.

ACQUIRED SYPHILIS.

§ 4. **Direct contagion** occurs by the infective sore, or its secretions, coming into contact with the skin or mucous membranes of healthy persons. No obvious abrasion need be present. The sex organs (male or female) are the most usual site of inoculation, but it may be also acquired on the lips, through kissing infective persons, on the breast by suckling syphilitic infants, or by doctors, nurses and midwives, on the hands or elsewhere.

Indirect contagion follows on the use of infected razors, spoons, forks, cups, pipes, etc. It is not uncommonly so acquired among glassblowers.

§ 5. The **period of incubation** varies from three to six weeks; the course of the disease is, for clinical convenience, divided into three or four stages.

In the **primary stage** a sore develops at the site of inoculation, usually the penis or some part of the genital organs. It is generally indurated at the base, and is, *therefore, named "hard chancre," in distinction from* the "soft chancre" of chancroid. Mixed infection, however, may be present. In a week or two the nearest lymph glands become enlarged and hard. The sore is not usually painful and may heal of itself; sometimes it remains an indolent ulcer; rarely in this country, the

rapidly destructive process of phagedæna develops, causing great loss of tissue even in spite of treatment.

By modern methods the disease can be cured in this stage, almost with certainty; even if insufficiently treated for cure, the second stage may be delayed. If untreated, in six to nine weeks after infection, fever and general disturbance come on; a rash, in great variety of form, appears on the skin of the body, and small ulcers and "mucous patches" on the mucous membrane of the mouth, throat and elsewhere; there is general glandular enlargement. In addition the eyes, bones and joints, arteries and nervous system may suffer in various ways. The skin and mucous lesions tend gradually to disappear even without treatment; but this disappearance, even with treatment, does not indicate that the patient is permanently cured. The disappearance of the secondary rashes is followed, as a rule, by a period of quiescence, which may last for years.

The tertiary stage coincides with the development of colonies of spirochætes scattered in the body during the secondary period. This occurs in the form of "gummata," being hard elastic nodules, situated in the substance of any tissue or organ. If near the surface, they tend to ulcerate and form large sores. Occurring in the nervous system they cause grave disturbance of mental or bodily function. Tertiary lesions do not tend to spontaneous healing. They sometimes assume a malignant form.

In the later stages of syphilis other complaints arise, specially of the nervous system, chief among which are the form of insanity known as general paralysis of the insane, and locomotor ataxy. Both are fatal, the former more rapidly than the latter. Aneurism of the aorta is now also recognised as almost always syphilitic.

As a contagious disease, syphilis is chiefly dangerous in the primary and specially the secondary stage; infection then is conveyed through the infective mucous membrane or skin; but the blood, saliva, and semen are also infective.

§ 6. The disastrous effects of hereditary syphilis are dealt with later; inheritance is generally through the mother, herself having been infected; but possibly sometimes directly from the father, without the mother being obviously syphilized.

GONORRHŒA.

§ 7. Gonorrhœa is due to a specific organism, the gonococcus, discovered by Neisser in 1879. It is almost always acquired through sexual intercourse, though

cases of indirect contagion are known, specially in children. Three or four days after infection, a purulent discharge begins from the urethra or vagina, accompanied, in the male chiefly, by painful micturition. The infection spreads along the mucous membrane and penetrates into the deeper layers. Infection of the blood stream may occur later. If taken early after onset, the infection may be cured in about a month. If untreated a chronic condition of "gleet" may supervene, or after long quiescence the disease may reappear with any sexual excitement or alcohol.

§ 8. Gonorrhœa is transmissible both in the acute and chronic stage. Sequels of the disease in male and female are dealt with later. Infection of the eyes produces a virulent ophthalmia in children or adults.

CHANCROID.

§ 9. **Chancroid** or "soft chancre" is ascribed to Ducrey's bacillus, is nearly always of sexual origin, and occurs on or near the genitals. Unlike syphilis it is painful and generally multiple; it is also highly contagious. It appears within a day of infection, and becomes pustular in three days. When the pustule breaks a soft-edged sharply-cut ulcer is left with a wide zone of inflammation. The adjacent glands enlarge and form an abscess. If untreated, the condition may become serious and chronic, and sometimes malignant in character; but if treated, it is readily curable, and leaves no constitutional effects. This disease, therefore, is not further dealt with, as it has no sensible effects on public health.

II.—PREVALENCE. §§ 10-68.

§ 10. The data for estimating the prevalence of S. and G. are unfortunately not satisfactory, as far as the general population is concerned; they are, of course, better in respect of the Navy, Army, and establishments under Government control. Statistics were obtained from the Registrars-General of England and Wales, Scotland, and Ireland, also from the Navy, Army, Police, Local Government Board, Prison and Lunacy Commissioners.

REGISTRARS-GENERAL.

§ 11. The Registrars-General have furnished figures of the certified death-rates from these causes in their respective parts of the Kingdom. Thus in the case of syphilis, during the period 1875-1911, the total certified deaths have fallen from 2,154 to 1,850: but the death rate per million (owing to the large increase of population) [illegible] fallen in the same period from 89 to 51; in

from 60 to 54. The actual curve of death-rates (see Chart opposite this page) shows a sharp rise from 1850-1870, a craggy top from 1870-1885, and a less sharp drop from 1885-1911. The Scots curve is of similar character, but a good deal lower until 1905. Ireland is quite different; its curve looks like a reflection (reversed) of the English and Scots curves.

§ 12.
§ 13.

§ 11, and App i

As a history of actual deaths from syphilis, all these data are declared, both by the Registrars and by the Commissioners to be entirely unreliable.[1] There has, during the past generation, been an increasing unwillingness among medical men to register deaths as due to syphilis, on account of the feelings of relatives of the deceased; for this and similar reasons the Commissioners advise a system of confidential certification of deaths, in order to get at the facts. As to the syphilis curves, the impression of experienced medical witnesses is that the prevalence of syphilis has not markedly decreased of recent years, though its manifestations are less virulent than 40 years ago. Despite their inaccuracies, however, the Commissioners consider that the records may be held to exhibit truly the proportions of disease as between England and Scotland, seeing that the same causes have produced similar errors; Ireland, a rural country, has all along had a less incidence of venereal death; but here also the actual figures are most untrustworthy.

§ 14.

App. i., ii., iii., and chart opposite.

A truer idea of the actual prevalence is obtained from G.P.I., tabes and aneurism, during the years 1901-11. In G.P.I. England falls from 70 to 60; Scotland rises from 44-54; Ireland from 9 to 28. In tabes all three countries show a rising tendency; in aneurism, England keeps a pretty steady figure, but distinctly higher than the previous 15 years, the level of 32 being practically the same as for the worst years (1875-80) when the curve of syphilis is at its height.

These deaths were not publicly known to be due to syphilis, and their registration was consequently not impeded. The figures lend no support to the supposition that syphilis has decreased during the last ten years, while the aneurism curve suggests that a temporary decrease between 1880-95 has been followed by an higher level since that date. Dr. Stevenson, in his most useful appendix, points to improved registration, and the increase in institutional deaths, which are truly certified, as causes likely to raise the curves, even if the incidence is actually steady; consequently he is inclined to believe

[1] The syphilis curve has another peculiarity in that 75 % of all the deaths occur in infants or children under 5 Its value, therefore, as an index of acquired syphilis falls to a very low level. [D W.]

cases of indirect contagion are known, specially in children. Three or four days after infection, a purulent discharge begins from the urethra or vagina, accompanied, in the male chiefly, by painful micturition. The infection spreads along the mucous membrane and penetrates into the deeper layers. Infection of the blood stream may occur later. If taken early after onset, the infection may be cured in about a month. If untreated a chronic condition of "gleet" may supervene, or after long quiescence the disease may reappear with any sexual excitement or alcohol.

§ 8. Gonorrhœa is transmissible both in the acute and chronic stage. Sequels of the disease in male and female are dealt with later. Infection of the eyes produces a virulent ophthalmia in children or adults.

CHANCROID.

§ 9 **Chancroid** or "soft chancre" is ascribed to Ducrey's bacillus, is nearly always of sexual origin, and occurs on or near the genitals. Unlike syphilis it is painful and generally multiple; it is also highly contagious. It appears within a day of infection, and becomes pustular in three days. When the pustule breaks a soft-edged sharply-cut ulcer is left with a wide zone of inflammation. The adjacent glands enlarge and form an abscess. If untreated, the condition may become serious and chronic, and sometimes malignant in character; but if treated, it is readily curable, and leaves no constitutional effects. This disease, therefore, is not further dealt with, as it has no sensible effects on public health.

II.—PREVALENCE. §§ 10-68.

§ 10. The data for estimating the prevalence of S. and G. are unfortunately not satisfactory, as far as the general population is concerned; they are, of course, better in respect of the Navy, Army, and establishments under Government control. Statistics were obtained from the Registrars-General of England and Wales, Scotland, and Ireland, also from the Navy, Army, Police, Local Government Board, Prison and Lunacy Commissioners.

REGISTRARS-GENERAL.

§ 11. The Registrars-General have furnished figures of the certified death-rates from these causes in their respective parts of the Kingdom. Thus in the case of syphilis, during the period 1875-1911, the total certified deaths have fallen from 2,154 to 1,850: but the death rate per million (owing to the large increase of population) has fallen in the same period from 89 to 51; in Scotland

rapidly destructive process of phagedæna develops, causing great loss of tissue even in spite of treatment.

By modern methods the disease can be cured in this stage, almost with certainty; even if insufficiently treated for cure, the **second stage** may be delayed. If untreated, in six to nine weeks after infection, fever and general disturbance come on; a rash, in great variety of form, appears on the skin of the body, and small ulcers and "mucous patches" on the mucous membrane of the mouth, throat and elsewhere; there is general glandular enlargement In addition the eyes, bones and joints, arteries and nervous system may suffer in various ways. The skin and mucous lesions tend gradually to disappear even without treatment, but this disappearance, even with treatment, does not indicate that the patient is permanently cured. The disappearance of the secondary rashes is followed, as a rule, by a period of quiescence, which may last for years.

The **tertiary stage** coincides with the development of colonies of spirochætes scattered in the body during the secondary period. This occurs in the form of "gummata," being hard elastic nodules, situated in the substance of any tissue or organ. If near the surface, they tend to ulcerate and form large sores. Occurring in the nervous system they cause grave disturbance of mental or bodily function. Tertiary lesions do not tend to spontaneous healing. They sometimes assume a malignant form.

In the later stages of syphilis other complaints arise, specially of the nervous system, chief among which are the form of insanity known as general paralysis of the insane, and locomotor ataxy. Both are fatal, the former more rapidly than the latter. Aneurism of the aorta is now also recognised as almost always syphilitic.

As a contagious disease, syphilis is chiefly dangerous in the primary and specially the secondary stage; infection then is conveyed through the infective mucous membrane or skin; but the blood, saliva, and semen are also infective.

§ 6. The disastrous effects of hereditary syphilis are dealt with later; inheritance is generally through the mother, herself having been infected; but possibly sometimes directly from the father, without the mother being obviously syphilized.

GONORRHŒA.

§ 7. **Gonorrhœa** is due to a specific organism, the gonococcus, discovered by Neisser in 1879. It is almost always acquired through sexual intercourse, though

1850 · · 60 · ·
MORTALITY
SYPHILIS
100
90
80
70
60
50
40
30
20
10

1885 1890 1895 1900 1905 1910

ANNUAL ADMISSIONS FOR ALL V.D.
IN BRITISH ARMY per cent
INDIA,
COLONIES
UNITED KINGDOM
50
45
40
35
30
25
20
15
10
5

ANEURYSM
60 ye
50
40
30
20
10

ADMISSIONS IN THE
HOME ARMY per cent
SYPHILIS
GONORRHEA
CHANCROID
12
11
10
9
8
7
6
5
4
3
2
1
0

stationary. Under these circumstances it is impossible to maintain that the Acts embodied a successful policy. The fall from 1886-1912 is represented by the figures 224·5$^{0}/_{00}$ and 56·5$^{0}/_{00}$.

This general fall is interrupted by a rise in 1900-1903, corresponding to the time of the S. African war. Taking the separate curves for S and G, gonorrhœa became as common as syphilis in 1897, and has since that date remained the more prevalent. The figures for 1912 are: gonorrhœa 30$^{0}/_{00}$, syphilis 19$^{0}/_{00}$, and chancroid 8$^{0}/_{00}$.

§ 19 In the *Indian Army* the V.D. curve shows a satisfactory decline since 1897, from over 500$^{0}/_{00}$ to just over 50$^{0}/_{00}$, while syphilis alone has fallen from 232$^{0}/_{00}$ to 12$^{0}/_{00}$; gonorrhœa from 191$^{0}/_{00}$ to 34$^{0}/_{00}$. Before 1897 there was a sharp rise for five years, which has no counterpart in the home figures. Syphilis in 1912 stands rather lower, and gonorrhœa somewhat higher, than in the Home Army. The Indian invaliding figures are higher than at home, probably on account of local conditions.

§ 20 The *Army elsewhere* (Colonial) shows a fall in total V.D. during 20 years from 247$^{0}/_{00}$ to 96$^{0}/_{00}$; of this 96, 15 is due to syphilis.

See Charts. Each of the three curves shows a rise at the time of the S. African war. The "constantly sick" from V.D., compared with men "constantly sick" from all causes, show the following percentages; at home 28·3%, India 24·4%, Colonies 39·1%; while "admissions" figure as approximately 1:6, 1:10, 1:4 respectively.

§ 21. In all cases gonorrhœa plays the greater part in causing "constant sickness." The diminution of V.D.

§ 22. in the Army is in itself satisfactory. The statistics are complete and accurate in a manner impossible for the general population; but it must not be taken as a measure of the civilian incidence. The latter ought apparently, in time, to be diminished by improvement in the Army; but no evidence of such effect is at present available, unless we take into account the crude annual death-rate from syphilis.

§ 23. The latest figures of the German and French armies (19·4 and 27·8 per thousand) have not exhibited much variation from 1900-1908. Both are lower than the British Army (66). The proportion of infected recruits is greater in Germany than here by over 50%[1] *(see footnote)*; and, though the diseases are less prevalent in the German Army (not recruits) than in the British, Professor Blaschko considers that the civilian populace of Germany is more deeply affected than in England.

[1] In the original Report, by a clerical error, "5 times higher" has been interpreted as "five times as high."

POLICE FORCE.

§ 24. Until 1909 all cases of V.D. were penalised, which led to much concealment. At present the incidence is very small, only about 100 men being infected per annum (1911-12) out of a force of 21,000.

LOCAL GOVERNMENT BOARD.

§ 25. Statistics are supplied from this Department which have an indirect bearing on the general prevalence.

§ 26. (1) *Still-births.* Syphilis is a great cause of still-birth. Under the Notification of Births Act, 1907 (now superseded by that of 1915), still-births, occurring after 28 weeks of pregnancy, have been notified since 1908 among about 75% of the population.

§ 27. The general percentage of still-births to live-births is about 3; a useful table is given of their distribution.—

Metropolitan boroughs (1908-12) .. .	2 18%
74 county boroughs and towns over 50,000	3·06%
67 towns between 20,000 and 150,000	3·34%

§ 28. The range of variation, however, is considerable, even in the same town from year to year, *e.g.*, from 6 to 9 6. Notification is still imperfect, and there are still many cases unattended by either doctor or midwife, which escape notification; even the attended cases are not always notified.

§ 29 (2) *Ophthalmia neonatorum,* as an index of gonorrhœa, to which 70% of all cases are due. This complaint was only made notifiable in 1914; but in some districts notification was in use up to four years previously. The figures for 1913 deal with nearly one-third of England and Wales, and show 1,913 cases among 294,984 births, or 6 5°/₀₀ The urban districts give 6 8°/₀₀, and the rural 1°/₀₀, which is probably a fair index of prevalence as between urban

§ 30 and rural districts. But here also there are great local variations, the explanation of which is not clear.

§§ 31, 32, (3) *Poor Law Unions.* Sir Arthur Downes put in a return of venereal cases given on July 1st, 1911. Of 643 unions 186 had such cases, the total number of which was 846 out of a total (indoor) of 235,863 paupers The proportion is very small; but Sir A. Downes said that the return was made from the viewpoint of accommodation, not medicine. He considered that a large proportion of indoor paupers, if properly tested, would prove syphilitic Early cases, moreover, of S. and G., do not in fact utilize the Poor Law premises.

(4) PRISONS.

§§ 33, 34. *Local Prisons* (terms not exceeding two years) showed, during five months, admissions of 53,064 males and 14,369 females. 1·65% of males and 1·98% of females were recognised as victims of V.D. The males suffered equally from S. and G.; in the females S. was twice as common as G. These, however, were only manifest cases; moreover, half of them all, both male and female, were discharged while still infective.

§ 35. *Convict Prisons* (three years and upward). Of 1,775 convicts examined, 299, or 17·04%, presented signs of S.; they were not examined by serum-test.

§ 36. *Borstal Institutions* (young prisoners of age 16-21). All inmates were examined specially for congenital S. Of 941, 153, or 16%, showed evidence of congenital S., and there were five cases of acquired S. This suggests that the mental defects of some such prisoners are due to syphilis.

§ 37. *Scots Prisons.* Of 11,993 male prisoners 156, or 1·3%, and of 4,958 females 28, or 0·56%, were found suffering from V.D. Of these also more than half were discharged while still infective.

§ 38. *Irish Prisons.* Dublin figures (Mountjoy) show a percentage of 2·7 for males and 2·8 for females, of which respectively a quarter and a half are syphilis; Belfast rather less, but the figures are incomplete.

§ 39. As to prisons generally, the examination is not searching, and V.D. is apt to be overlooked, especially in short-term prisoners. Serum tests are not made, and microscopic examination is not common; concealment is easy. The figures given are not regarded, except in the Borstal cases, as showing the true amount of V.D. in prisons.

5. LUNACY COMMISSIONERS for England and Wales prepared a

§ 40 table showing the incidence of G.P.I., based on five years admission to the asylums. The figures show 5,352 men and 1,028 women. As the disease mainly occurs between the ages 25 and 54, it is of interest that $7{\cdot}12\,^{0}/_{000}$ of the total male population of these ages, and $1{\cdot}23\,^{0}/_{000}$ of the female, has in five years suffered from

§ 41. G.P.I. In London, during the same period $12{\cdot}9\,^{0}/_{000}$ of London males (25-54 age) and 1·9 per 10,000 females were affected. The proportion is less in the County Boroughs as a whole, 8·3 and $1{\cdot}5\,^{0}/_{000}$, and still less in the Administrative Counties (other than London), 5·2

§ 42. and $\cdot 9\,^{0}/_{000}$. All cases of G.P.I. are certainly due to syphilis; but this single disease is no measure of the

§ 43. prevalence of S. among lunatics. In the London asylums

(1911-12) more than 8% of admissions were cases of G.P.I.; among the males the percentage is 15, showing the large part played by syphilis in peopling asylums. It is also of interest to note that while the admissions in the eastern and western parishes of London are nearly equal (western 3,597, eastern 3,477), the proportion of males to females is 6 : 1 in the west and only 4 : 1 in the east; the affected women are more than half east-enders, while the men are rather more from the west.

App. xi. Tables ii., iii., iv.

SPECIAL INVESTIGATIONS

§ 44. With a view to estimating the general prevalence of V.D. certain special investigations were carried out.

App. xii. § 45. (1) Dr. Fildes reports the result of 1,002 serum tests carried out at the London Hospital under the supervision of Dr. Bulloch. The patients tested were specially selected, in the sense that all were adults (19 and upwards) and had come to hospital for reasons wholly unconnected with syphilis. Cases of obvious or probable syphilis were excluded. In about three out of four positive cases, there turned out to be a positive history of syphilis; but detailed enquiry was found to be resented and was abandoned. Of 616 males thus tested, 64 gave positive reactions; of 386 females 20 proved syphilitic. This gives a percentage of 10 3 and 5 1 respectively. The age distribution was worked out, but Professor Pearson considered the numbers too small to establish a relation between age and incidence. Yet

§ 46. the experiment does imply that in a typical working class population of London, at least 8-12% of adult males, and at least 3-7% of adult females have acquired syphilis. If congenital syphilis were included, or if the total number of patients attending had been tested, the proportion would certainly have been higher.

§ 47. App xiii (2) Sir John Collie carried out an investigation among employés referred for a medical report. The persons examined fell into three classes :—

(*a*) 1,119 disabled by accident or illness, requiring report.

(*b*) 557 apparently in perfect health, but requiring medical examination before appointment.

(*c*) 500 of the same, who submitted to the Wassermann test.

The first two classes only underwent a clinical examination; they showed 56 cases of syphilis or 3 3%. But among the last group who were blood-

tested, 46 or 9·36% proved to be syphilitic. Sir John Collie held that had the other classes been examined by the same test, at least an equal proportion, and probably a greater in class (a) would have have given positive reactions. In the last group (c), out of 103 men who had been in the Navy or Army, 19% had been infected, as compared with 6% among 343 civilians. The average age of the men was about 30; nearly all were married. The men thus dealt with were of a somewhat superior class, so that the figures are the more remarkable, closely corresponding as they do with Dr. Fildes's results, where there was no class selection. It must also be remembered that in tertiary syphilis, the test often—in about 15%—gives negative results two or three times before a positive reaction is obtained; these cases were only once examined. Positive results are certain, negative results much less so It is probable that these results underestimate the prevalence of syphilis in the industrial community, "the deadly influence" of which is exhibited in Sir J. Collie's analysis.

§ 48. App. xiv. (3) The Lister Institute examined the blood of patients admitted to 14 asylums during three months (October-December, 1914), selected as representative of different sections of the population. Of 545 samples 84 were positive, 9 partial, and 452 negative. This implies a positive percentage of at least 15-17.

§ 49. App. xv. (4) Under Dr. Mott's direction, the serum-test was applied to patients in various institutions, suffering from various disorders of the nervous system. *Epileptics* were found to give 7·4% of positive reactions; *insane* [illegible] *minded children* g [illegible] considered high e [illegible] condition on previous syphilis.

Out of 1,483 patients admitted to certain *London infirmaries* 295 cases, or 19·9%, proved to be syphilitic—the proportion being double those found among apparently healthy employés by Sir J. Collie.

In the case of newly-born infants, or their mothers, 71 Shoreditch cases gave 19·7% positive, while in St. Pancras 90 cases gave 6·6%. The latter were entirely cases of legitimate birth; 29 of the Shoreditch cases were illegitimate. The illegitimates gave a percentage of 27·6%, showing

Of infant deaths from syphilis, the figures are 25% less for legitimate births, showing the excess of syphilis in illegitimacy. The mortality, indeed, from syphilis among illegitimate infants appears eight to ten times higher than that of legitimates, though this is in part fictitious, the cases being better registered.

§ 56. *Social Distribution.* Dr. Stevenson has tabulated all deaths from syphilis and sequential diseases in eight classified groups:—

CLASS.	SOCIAL STATUS	DEATH RATE	ORDER.
1.	Upper and middle .	302	III.
2.	Between 1 and 3 .	280	IV.
3.	Skilled labour . .	264	V.
4.	Between 3 and 5 ...	304	II.
5.	Unskilled labour	429	I.
6.	Textile workers .. .	186	VI.
7.	Miners	177	VII.
8.	Agricultural labourers	108	VIII.

The chief points shown are (1) high incidence in classes 5, 4, 1, and the relative immunity of 8, 7, 6. (2)

[illegible]

textile workers, and agricultural labourers are relatively free.

§ 57. It is to the further detriment of the upper classes that only 31% of the upper and middle class deaths occur in institutions, where they are better registered; while 78% of the "unskilled" deaths occur in such places. These two are the lowest and highest of the institutional percentages. The large increase of institutions of late years favours correct statistics; in 40 years the percentage of all deaths occurring in institutions has risen from 8·3 to 21·4.

DEFECTS OF REGISTRATION.

§ 58. The returns from the three portions of the kingdom are unsatisfactory as regards venereal diseases, and to a lesser extent in certain others. The methods are not uniform, nor is there any central registration for the kingdom as a whole. The methods of certification differ in each portion, but in none is certification confidential. The relatives have always access to the certified cause of

§ 59. death. A select Committee of the Commons in 1893, though not dealing specially with V.D., recommended that doctors should send certificates direct to the registrar, instead of giving them to relatives. But neither this Committee, nor an abortive Bill of 1914, proposed that

these documents should be confidential. *This is necessary for accurate statistics; the confidential character being only subject to the requirements of the Courts.*

§ 60. Such confidential certification occurs in all other important European States. Dr. Stevenson proposed that the doctor (1) should give to the relatives a certificate of the *fact* of death, (2) should post to the registrar a certificate of the *cause* of death. Such a plan has the support of the B.M.A. and other medical societies.

§ 61. Certain objections are brought by Life Insurance Offices; but in the Commissioners' opinion any disadvantage would be outweighed by the advantages to

§ 62. them resulting from accurate vital statistics. The whole investigation shows their present inaccuracy as regards venereal diseases.

§ 63. The Commissioners also recommend that an extended Notification of Births Act (1907) *should be made universally operative.*[1]

HOSPITAL STATISTICS.

§ 64 Though 285 hospitals were approached with a view to information as to incidence of these diseases, no really useful information was received, and apparently no records are kept. The managing bodies are urged to rectify this, since such information ought to be obtainable from

§ 65. bodies whose funds are of a semi-public kind. Useful figures were obtained from the Poor Law Unions of

§ 66. London, but not from the Provincial Unions. *It is advised that the Local Government Board should devise a uniform scheme of registration* to be utilized by all centres of institutional treatment.

INSURANCE COMMISSIONERS.

§ 67. This body was not yet in a position to supply V.D. statistics

CONCLUSIONS AS TO PREVALENCE.

§ 68. Apart from the Navy and Army there is no accurate means at present of estimating the general prevalence. Partial attempts at local censuses have been made in Melbourne (1910-11), and Prussia (1900). In Denmark a system of notification exists, but its accuracy is disputed. The special tests, that have been carried out in many places, have served to show an unexpectedly high incidence of both S and G If the Registrars' figures were trustworthy they would be a basis for estimation; even then, unless the cause of still-births were always ascertained, the figures would be incomplete as regards the effect of syphilis on the potential population. Sir

[1] This was done by the passing of the Notification of Births (Extension) Act, 1915.

W. Osler considers that "of the killing diseases, syphilis comes third or fourth"; and a very great number of such deaths escape recognition. The Commissioners are led to the general conclusion "that the number of persons who have been infected with syphilis, acquired or congenital, cannot fall below 10% of the whole population in the large cities, and the percentage affected with gonorrhœa must greatly exceed this proportion."[1] *(See foot-note.)*

III.—EFFECTS OF VENEREAL DISEASES. §§ 69-107.

Syphilis.

§ 69 The immediate effects of syphilitic infection are slight compared with later developments. The local inflammation at the site of inoculation is seldom painful, nor is the constitution disturbed, till the germs spread into the lymph and blood-stream. When this occurs, every organ and tissue is liable to be the hatching ground of new colonies of germs, the character of which is similar, microscopically, to the primary sore.

§ 70 The distinction into primary and later stages is convenient clinically; but the process is similar throughout, except that the longer the infection remains the less virulent does it become. The spirochæte is less easily found in the later lesions than in the earlier. From the scientific, as well as the therapeutic viewpoint, the primary stage is the *only* early stage.

§ 71 In the primary stage, the spirochæte may be found present even before an obvious papule or chancre occurs. If the papule be eroded, a small ulcer is formed, which then may become septic as well. A few days after its appearance its base becomes hard and gristly. The primary sore tends to spontaneous cure, but the hard base remains for some weeks. The glands of the groin (in genital cases) become hard and shotty, but painless; if the sore be septic, there may be an abscess in the groin. The usual painlessness of the primary sore is a great source of danger both to the patient and the public, as he is not driven to seek advice.

§ 72. Chancres, which occur elsewhere than on the genitals, vary in their characteristics, and are hard to diagnose early. They occur most commonly on the lips, the tongue, mouth, and fingers. On the *finger*, the sore occurs around the nail and simulates a whitlow; induration seldom happens. On the *lip* and *tongue* a chancre

[1] If this conclusion be correct, it implies 450,000 syphilitic persons in London; and, inasmuch as the mortality figures of S. for the whole Kingdom amount to 6.6 times that of London, it suggests that there must be 3 million syphilitics in the Kingdom. D. W.]

may be mistaken for a cancerous growth, which it often resembles; if the *face* is cut by an infected razor, the cut heals, and reopens later on, with an indurated base. In the *eye* it may resemble a stye on the lid, or a conjunctivitis if the surface of the eye itself be infected. In the *breast*, a sore appears more often at or near the nipple.

§ 73. After about seven weeks a rosy red rash appears on the skin, and mucous patches on the mucous membranes, specially tonsils and throat. These are the outward signs of the dissemination of infection through the body; the germs may then be landed in the internal organs, the nervous system, or the walls of the arteries, specially the aorta. The constitution suffers from some fever, debility, anæmia; the hair often falls out. With the multiplication of the spirochæte, the human organism creates "anti-bodies" (in the serum) to combat it, so that there is a tendency for the disease to localise at the sites of secondary implantation. The nidus, thus localised, may

§ 74. remain latent for a period of years; it may occur in the heart, testicles, liver, lungs, bones, nervous system, etc., and await a period of lowered vitality, or injury, for its efflorescence. Thus a blow on the head may cause a syphilitic growth or "gumma" in the scalp, skull, or meninges. They are common in superficial structures, *e.g.*, forming ulcers on the legs, which on healing form characteristic scars like tissue paper. Both bone and

§ 75. soft tissues may be damaged. Serious bone and skin lesions, with a fatal termination, are less common than formerly, possibly owing to our knowledge of antisepsis: but it is doubtful whether other even graver internal troubles are less frequent than in former years. Nature, in addition to quelling the secondary dissemination, forms fibrous capsules round the germ-colonies, which in many tissues have a curative effect; but in the aorta and arteries, the replacement of softer tissues by fibrous material produces a condition of arterial "sclerosis" or

§ 76. hardening This condition, occurring in persons in the prime of life, makes syphilis responsible for much fatality attributed to other causes. Syphilis ages the arteries; and "a man is as old as his arteries."

§ 77. *Arteritis.* Special effects follow such arterial changes. If the small arteries of the brain are involved in the inflammation (endarteritis) clotting may occur, causing a patch of softening in the brain substance from lack of nutrition. This may cause paralysis, loss or damage of speech, and mental enfeeblement.

In the larger arteries, or the aorta, the inner coat becomes damaged and the whole artery weakened; this, after rupture of the inner wall, developes into an aneurism,

or ballooning of the artery, induced by the pressure of blood within. It is estimated that at least 90% of all cases of aneurism are due to syphilis.

The flaps of the aortic valves may be stiffened and thickened, causing aortic regurgitation—a serious and often fatal condition. The "coronary" arteries, which supply the heart itself, may become affected (like the brain), causing degeneration of the heart muscle, and producing "angina pectoris" in conjunction with aortic disease.

§ 78. *Nervous System.* But the most important late effects of syphilis are related to the central nervous system—brain and spinal cord; not only from the frequency with which they occur, when once the disease is established, but on account of the special difficulty that exists in ridding the central nervous system when once attacked. Thus the enclosing and nutrient membranes of the brain and spinal cord become infected (meningitis) and the infection spreads by continuity to the brain and spinal cord within, so that there also gummatous tumours are formed. Results vary with the portion affected; paralysis of half of the body (brain), or of the lower extremities (spinal cord), blindness, deafness, loss of speech and memory, mental debility, epileptiform convulsions, and many other symptoms. These are due to tertiary tumours in the nervous system.

§ 79. But besides these, there are other forms of nervous disorder, which used to be considered to occur principally in people who had had syphilis (parasyphilis), but are now known to be actually a late form of syphilis. These are (1) general paralysis of the insane, (2) optic atrophy, (3) "tabes dorsalis" or "locomotor ataxy." These are due to the latency of the spirochæte in the nervous system, and occur generally about ten years or so after infection. Dr. Mott calls these varieties "parenchymatous syphilis," and the form assumed depends on whether the germ is latent in the brain or the spinal cord or the optic nerve.

In "tabes dorsalis" (wasting disease of the spinal cord) two of the most marked symptoms are "lightning pains" and a peculiar disorganisation of the powers of walking; but joints, bones, and skin are also affected, as may be the bladder, stomach, or other organs. Blindness frequently occurs (optic atrophy) in association with tabes, and, later on, general paralysis, too, may supervene.

"General paralysis" (a similar disease in the brain) is the most serious of all. It is an always fatal disease which

attacks either sex, in the prime of life (25-54 chiefly), and is responsible for 15% of male admissions to the asylums of large cities, and nearly 3% of female admissions.

§ 80. Syphilis, moreover, is held to predispose to certain forms of cancer, and also tuberculosis; its widespread effects on the whole system were emphasised in the evidence, so that, as Sir W. Osler said, "a student who was thoroughly taught syphilis would acquire a good knowledge of all branches of his profession."

GONORRHŒA. *In Males.*

§ 81. This is commonly regarded as a trifling ailment, but in reality it has far-reaching consequences, both to the individual and the nation. Early treatment is often neglected, and thus the time is lost when cure can be most readily affected. The disease can be contracted time after time, with increasing risk of evil consequences.

§ 82. Complications are early or remote

(1) The gonococcus (which causes the disease) tends to penetrate the mucous membranes and affect deeper structures.

(2) Infection extends backwards and affects the prostate, a gland situate at the neck of the bladder, causing (*a*) acute or (*b*) chronic inflammation.

(*a*) Results are high fever, obstruction to flow of urine and abscess formation, requiring surgical interference.

(*b*) Chronic inflammation of the gland leads to frequent discharges from the urethra, causing great mental distress.

(3) Inflammation of seminal vesicles is apt to follow (2), with similar effects, as well as possible sterility, owing to obstruction of the seminal fluid.

(4) Inflammation of the epididymis, a part of the testicle, is brought about by the spread of the gonococcus to the back parts of the urethra. It is intensely painful, and may result in withering of the testicle. If both testicles are thus inflamed sterility frequently occurs.

(5) The spread of infection to the bladder causes cystitis; there is urgent desire to expel the urine at frequent intervals, with intense pain during the act.

(6) Later on the kidneys may be involved, resulting in pyelitis or pyelo-nephritis, which is both painful and often fatal.

(7) A long continued attack of gonorrhœa causes scarring within the urethra and leads to stricture, or narrowing of the tube, with obstruction or stoppage of the passage of urine, necessitating operation. Such obstruction produces disease of bladder and kidneys.

(8) Infection may pass into the blood stream causing acute blood poisoning (septicæmia and pyæmia).

(9) In this way it is often conveyed to the joints causing inflammation of a most severe kind, often followed by permanent crippling. Muscle sheaths or tendons may become involved (myositis and teno-synovitis) resulting in lumbago and similar pains, and often flat-foot.

GONORRHŒA. *In Females.*

§ 83. If the results are serious for men, they are worse for women. It leads more commonly to sterility, various operations, invalidism and death. The infection in women is peculiarly tenacious and difficult to cure, when once firmly established.

§ 84. The vagina is the usual seat of primary infection, from which it spreads upwards and downwards—upwards to and through the neck of the womb, and downwards to certain structures of the external genitals, where abscesses may develop. The bladder may also be infected through the urethra, with distressing results. If untreated the acute stage gradually passes into the chronic condition, which generally is only one of slight discomfort, but is liable to fire up again into an acute or sub-acute attack, specially after any exposure to cold, imprudence in diet (specially alcohol), sexual intercourse, or operative interference.

§ 85. In its later course, as with the male, the disease becomes more widely spread and more difficult of cure. It passes into the womb, thence along the oviducts to the ovaries, and often infects the pelvis and peritoneum. This happens both in fertile and unfertile women, and is responsible for a large proportion of pelvic inflammations. Serious operations, invalidism, and often death are the results.

§ 86. *Sterility.* Of sterility, gonorrhœa is responsible for about half of that which occurs from all causes. It prevents conception in the early stages, and when this does occur, miscarriage is apt to ensue, owing to the womb itself being inflamed. If the child is successfully carried, the risk of infection of the tubes and ovaries is increased, so as to render future pregnancy impossible; hence the frequency of "one-child fertility." After birth, puerperal

§ 87. sepsis and death of the mother may occur. Infection of the joints happens, as in men, and is frequently mistaken for rheumatism; also inflammation of the inner lining of the heart, and of the iris of the eye.

§ 88. *Little girls.* In children's hospitals, girls from 4-14 are found to suffer from gonorrhœa. The genitals of young girls are particularly sensitive to gonorrhœa. Genital infection is sometimes brought about by sexual means, and is sometimes due to the cruel superstition that a man is cured of venereal infection if he has intercourse with a virgin. But it is most frequently brought about through infection by towels and such-like articles; a smaller number may be vulvally infected during the birth-process. Gonorrhœa in little girls has two peculiarities; it is generally limited to the vulva and vagina, not usually reaching the uterus and ovaries, but also, it is peculiarly hard to cure, owing to the small size of the parts and the unruptured hymen. They are also specially liable to convey their own infection to their eyes by the fingers, causing disastrous ophthalmia.

EFFECTS ON OFFSPRING. §§ 89-98.

§ 89. *Hereditary Syphilis.* Syphilis is generally transmitted from the mother, she having been infected either previous to, at, or after conception, the infection passing through the placental circulation. Some consider, but most deny, that it may be transmitted to the child directly from the father, without affecting the mother. It is doubtful whether it is ever transmitted to the third generation; this is usually held to be a rare event.

§ 90. Hereditary syphilis is in some ways more serious than in the acquired form, since it here attacks developing structures; it is a very frequent cause of abortion, miscarriage, and still-birth. Thus, in one series of cases, out of 1,001 pregnancies in 150 families where syphilis existed, there occurred 172 miscarriages or still-births, and 229 infant deaths; while of the 600 live children 390 were diseased. (App. xvi.)

§ 91. When symptoms are present at birth, survival is rare. But usually no symptoms occur for a few weeks after birth; then a nasal "snuffles" appears, with inflammation of the nose which may affect the bone and cause a depression of the bridge of the nose ("saddle-nose"); this is accompanied by a laryngitis, causing a peculiar hoarse cry, and a multiform rash as in acquired cases. Emaciation, anæmia and debility ensue, with the skin loose and dry, and the face wrinkled and senile. Hair and nails may fall out, and sores round the mouth and

anus develop. Spleen, liver, and testicles are enlarged. The internal structures of the eye become inflamed (iritis and choroido-retinitis). The bones of the head become bossed, and other bones are attacked in their growing portions. The brain is often affected, and such children die of meningitis, hydrocephalus or convulsions. Death is very generally not ascribed to syphilis. Under treatment the child may survive, in which case the early symptoms have run their course in a year.

§ 92. This is followed by a period of "latency," or absence of symptoms A few years later, growth, vitality and intelligence become depressed. The permanent front teeth show a peculiar notching (Hutchinsonian teeth); the sight and hearing are often impaired or destroyed. Bones and joints suffer; nodules (gummata) may appear in any structures, and lungs, liver, or kidneys may undergo inflammation. Deep damage to the soft palate is common, and the central nervous system may be gravely affected, as in adults, G.P.I. and tabes also occur, but are rather rare. Manifestations of congenital syphilis may continue to appear up to about the twentieth year.

§ 93. Various family histories supplied by Dr. Mott strikingly illustrate the effect on children of acquisition of syphilis by parents. The earlier offspring may be all healthy; intervening parental syphilis is then followed by miscarriages, still-births, infant deaths, juvenile paralysis and every type of syphilitic disease in offspring. In one series of 34 syphilitic mothers 175 pregnancies resulted in 30 apparently healthy children; 104 died, and 41 were seriously diseased. These disastrous effects can be prevented by efficient treatment of the parents.

§ 94. The various *eye diseases* of congenital syphilis may occur in early life, but some not till later. Of 1,100 children in blind schools, one-third of the cases were found due to syphilis.

§ 95. As to *ear affections*, children may be born deaf, or become deaf in their early years. Syphilis is variously estimated to account for 7% to 25% of such "congenital" deafness; it is twice as frequent in girls as in boys. The Commissioners believe that syphilis may prove to be a greater cause of physical disability than is yet demonstrated.

§ 96. *Gonorrhœa.* Of the effects of parental gonorrhœa on offspring, ophthalmia neonatorum is the most serious. This is an infection of the membrane which lines the eyeball and lids, implanted there during the process of birth. It may be caused by some other germ, but is held to be due in 70% of cases to

gonorrhœa. While generally a birth process, it may be caused immediately after birth through contaminated fingers or towels. Pus forms beneath the eyelids quickly and produces a considerable swelling. This causes ulceration of the cornea, and if not promptly and vigorously dealt with, complete blindness follows. Indeed, about 25% of all cases of blindness are attributed to this cause, and among the 1,100 cases of blind children previously mentioned, 24·35% were the result of gonorrhœal ophthalmia. When infants are thus affected, the mother, nurse, or other children are liable to be secondarily infected through touching or wiping their eyes with infected fingers or cloths.

§ 97.

§ 98. It is not to be forgotten that mixed infection of the eyes or eyelids may happen, so that the infant or other person acquires syphilis as well. Treatment is then less effective.

RELATION OF ALCOHOL TO V.D. § 99.

§ 99. The use of alcohol is closely related to V.D. of all kinds. It causes both men and women to yield to sexual temptation through weakening of moral and intellectual control; it also diminishes the physical resistance, and aggravates disease. Alcoholism also excites into activity latent syphilis and gonorrhœa, and renders the body refractory to treatment Absolute abstinence from alcohol is necessary during treatment, specially that of syphilis by salvarsan.

Increase of general temperance will certainly be an important factor in the stopping of venereal diseases.

ECONOMIC EFFECTS OF VENEREAL DISEASE. §§ 100-107.

These are of so great importance that it is considered desirable to reproduce the full text of the Report thereon:

§ 100. "The grave economic losses to the State which venereal diseases involve constitute a powerful argument for the initiation of general measures of prevention and treatment at the earliest possible date.

§ 101. "These diseases take effect at every stage of life, and in the case of syphilis any part of the body may be temporarily or permanently affected Both gonorrhœa and syphilis lead to an enormous annual loss of child life. Gonorrhœa is one of the great causes of sterility in men and in women. It is estimated that from 30% to 50% of sterility among women is due to this cause. Of antenatal deaths and deaths in early infancy a large proportion are due to syphilis. Registered still-births, which, as we have pointed out, do not give full figures, are estimated to be equal to 3% of the total live births, and

of registered still-births probably, at least, half are due to syphilis. The effects of syphilis in producing miscarriages, still-births, infantile mortality and diseased offspring are strikingly illustrated in the records of family histories contained in Appendix XVI. At the earlier stages of life, therefore, the total loss to the State is certainly very large.

§ 102. "Among children born alive, ophthalmia neonatorum, one of the results of gonorrhœa, has been responsible for a large amount of blindness, though happily at the present time the active measures being taken by public [illegible] much to combat this evil. [illegible] equently leads at an early [illegible]. The figures laid before us by Mr. Bishop Harman (Appendix XVII.) show that more than half of all cases of blindness among children are the result of venereal diseases in the parents. Of 1,100 children in the London County Council schools for the blind, the cause of blindness in 268 cases, or 24·4%, was found to be gonorrhœa. In 343 other cases, or 31·2%, the cause was certainly, and in 31 additional cases, or 2·8%, probably, syphilis. Thus the total percentage attributable to venereal disease was certainly 55·6 and may have been as large as 58·4.

"To the expenditure incurred in the treatment of these children must be added the additional cost of their education. Dr. Kerr-Love stated that the cost of educating a deaf child is ten times as great as in the case of a normal child. The figures published by the London County Council indicate that the total cost of educating a child in the day schools for the blind is about seven times the cost of the education of the ordinary child.

§ 103. "To blindness and deafness must be added cases of imbecility, idiocy, and various forms of skin, bone and other diseases, which may result from congenital syphilis. The total number of such cases cannot be estimated; but the aggregate public and private expenditure involved must be large apart from the loss of producing power entailed.

§ 104. "Among adults the loss of working power from the earlier effects of the diseases is important. The naval statistics for the year 1912 show, for an average strength of 119,540 men, a total number of 269,210 days lost as a result of venereal diseases; in the Army at home during the same year it appears from the returns that, with a strength of 107,582 men, there was an average of 593 constantly sick, equivalent to a loss of 216,445 days, from the same causes. If corresponding figures for the civil

population could be obtained, they would be found to be extremely large, and it must be borne in mind that the civil population has not at present the advantage of easy access to the best modern treatment which has been provided for the Navy and Army. The evidence we have taken clearly establishes the fact that the neglect of venereal diseases, apart from the risk of later manifestations, has the effect of rendering the treatment more difficult, protracted and expensive, thus entailing a large aggregate loss of working power.

"On the other hand, the effects of improvements in the methods of treatment are very marked in the case of the Navy and Army. We were informed by Surgeon Scott that, in the case of the Navy, the new treatment was responsible for saving more than 8,000 days sickness in the year 1912. In the Army, Colonel Gibbard stated that the adoption of the new treatment had resulted in the reduction of the average number of days in hospital on first admission from 42 to 23·2, while the percentage of relapses had fallen from 33 to 3·9.

§ 105. "In their later manifestations, both gonorrhœa and syphilis are responsible for a vast amount of incapacity. In a considerable proportion of cases, syphilis, at an average period of 10 to 15 years after infection, shows itself as general paralysis of the insane or locomotor ataxy. Many thus affected, not suspecting the latency of the disease, have married and undertaken the responsibilities of family life, and their incapacity to support themselves and those dependent on them is, apart from the misery brought about, a serious matter from the point of view of the welfare of the State.

"The statistics of the London County Council asylums show that in the quinquennial period, 1908-1912, rather more than 9% of the total admissions, or 16% of the male and 2·6% of the female admissions, are cases of general paralysis of the insane. The number of patients suffering from general paralysis in the asylums at any time is about 2·3% of the total asylum population. The total expenditure on the maintenance of all lunatics in these asylums is £600,000 a year; this does not include the county rate for asylum buildings, which amounts to 3s. 6d. per week for each patient, or about £180,000 a year.

"In England and Wales as a whole the average number for the three years, 1910-12, of cases of general paralysis under care in county and borough asylums was 2,307. Taking the average cost per patient as 15s. per week, the

expenditure on cases of general paralysis alone would amount to nearly £90,000 annually.

"If to these cases be added other forms of insanity resulting from syphilis and requiring asylum treatment, the annual cost to the asylum authorities in England and Wales cannot be less, and may be much more, than £150,000.

"The cases of idiots and imbeciles whose brains have been arrested in development on account of congenital syphilis have already been referred to.

"The Poor Law infirmaries also contain a number of persons suffering with incapacitating diseases of syphilitic origin, such as locomotor ataxy, various forms of paralysis caused by disease of the brain and spinal cord, arterial disease, heart disease, and chronic skin and bone diseases. These disabling diseases are not necessarily fatal, and many cases live on in the infirmaries 10, 20, or even 30 years.

§ 106. Untreated, or inefficiently treated, syphilis is the main cause of the occurrence of these fatal and incapacitating diseases in asylums and Poor Law infirmaries; consequently, early efficient treatment, by curing syphilis and preventing the spread of infection, cannot fail to have an important influence in lessening the great economic burden entailed by the maintenance of patients suffering with incapacitating and incurable disease in asylums and Poor Law infirmaries.

§ 107. "It is clear that if the various sources of loss above referred to could be rendered in terms of annual expenditure, the resulting total must be enormous. We cannot expect that the whole of this loss can be avoided; but we are satisfied that a large proportion of the total expenditure can, in the future, be saved, and that the savings would far more than counterbalance the cost of the measures we propose for the prevention and treatment of the diseases."

IV.—MEANS OF TREATMENT AND PREVENTION. §§ 108-229.

§ 108. The extreme importance of accurate and early diagnosis is testified by all expert witnesses, including military and naval experts. Clinical diagnosis is sufficient in many cases; but many others, clinically mild or atypic, are passed over and act as "carriers" to the community; they also suffer later themselves, through absence or inadequacy of treatment, from the ulterior effects of syphilis or gonorrhœa. Early correct diagnosis is the key to early treatment, cure and prevention.

Public education can accomplish much by arousing the conscience of the community to the dangers of failure

to seek early treatment, through disregard of mild initial symptoms, which leads not only to individual disaster, but to the spread of disease to others. *Every inducement should be offered* to all sufferers to apply for early treatment, *and no disability of any kind*—social, economic, or administrative—should be allowed to prevent the early diagnosis and treatment of all cases, however slight.

§ 109. *Methods of Diagnosis.* Laboratory methods are available for the diagnosis of both diseases. In many cases clinical examination is sufficient; where, however, any doubt exists, it must be solved in the laboratory—

(1) By the demonstration of the organisms in the tissues, fluids, or discharges.

(2) By the serum-reaction (Wassermann test).

(Noguchi's test, comparable to the tuberculin test, is not much used in England.)

The demonstration of the germs of syphilis or gonorrhœa is of course proof-positive. Its absence, however, it not proof-negative; for they may be present, yet inaccessible, or overgrown with other bacteria. Application of antiseptics to a sore may mask the presence of the spirochæte. Therefore, where doubt exists, the blood should be tested; the test, however, does not generally come off until the sore is 15 days old. The test is, moreover, of great value in many chronic ailments of which syphilis is the unsuspected cause

The value also of examination—microscopic and chemical—of the cerebro-spinal fluid is of great importance in diagnosing the nature of nervous disease. In practically all cases of G.P.I , and most other cases of nervous syphilis, the fluid gives the Wassermann reaction and shows the abnormal presence of cells

The Wassermann test employed should be of a uniform technique, and in accordance with Wassermann's original method. (Report of Committee of the Royal Society of Medicine)

Though the practitioner be unable to carry out the tests himself, he can always send the specimen of discharge or blood to a laboratory; delay of a few days does not invalidate the test *But laboratory facilities need organisation.*

§ 110. *Treatment of Syphilis* Complete cure is the eradication of syphilis from the system. The most cogent proof of entire cure lies, oddly enough, in the event of re-infection, which cannot take place in a person who still harbours syphilis. Many cases of re-infection after modern treatment are reported, syphilis is therefore definitely curable. Complete cure is practically certain, only when the disease

is still localised at the primary site; but it is still possible in the secondary stage if the spirochætes in the blood-stream are killed off by intravenous treatment (salvarsan) before they have time to colonise.

§ 111. Formerly, doubtful sores were left alone until their nature was revealed by secondary symptoms; such an "expectant" policy often led to the later development of general paralysis or tabes, even where mercurial treatment was well carried out after the appearance of secondaries. Fortunately this policy is no longer necessary; for the nervous system is as liable to infection, during the acute secondary period, as any other part of the body; and, for anatomical reasons, far more difficult to reach with curative drugs. *Hence treatment in the primary stage is an urgent need.*

§ 112. It is possible that, in a few individuals, the defensive mechanisms of the body are sufficient to effect a cure or apparent cure. But there is no means of assurance that this will be so in any given case; the earliest possible treatment is therefore invariably necessary.

§ 113. Good bodily health, however, is of great importance to the effectiveness of curative measures. Depression, caused by fear of the disease, by dread of social stigma, and often by the reading of quack literature, tends to prevent cure; it may lead to alcoholic excess, or may create a neurotic condition which lowers nature's defences and obstructs the operation of remedies. Everybody, therefore, ought to know that *no grave disease responds more readily to early and efficient treatment than syphilis,* either as to complete cure or prevention of subsequent complications.

§ 114. *Mercurial Treatment.* Since the fifteenth century mercury has always been regarded as a specific remedy, though at one time it fell into disrepute owing to its excessive and injudicious use. The evils attendant on excessive mercurialisation have still left a prejudice in the public mind against mercury, which is still exploited by quacks; attempts were made to replace it by iodide of potash, which, though having a remarkable effect in the absorption of inflammatory products, does not destroy the spirochæte of syphilis. A rational and measured treatment restored the reputation of mercury, which is still effectively used, though now in combination with arsenic, in the treatment at least of primary and secondary conditions. Mercury may be taken by the mouth in pill or mixture, but the doctor cannot personally control the administration, and it is apt to produce indigestion and diarrhœa. Inunction, *i.e.* the rubbing into the skin of

arsenic-phosphorus compound, the use of which has met with success. The licences of all these were made subject to biological tests by the Medical Research Committee (National Health Insurance), which accepted the responsibility from the Board of Trade. Their first report describes the measures taken to safeguard the preparation of the drugs, explaining that the manufacturers' tests were supplemented by the same biological tests which were found adequate at the Ehrlich Institute. These tests showed that the problems of manufacture had been overcome, and this opinion was confirmed by clinical reports from special hospitals.

Mr. Lane published in 1915 (May), after experience of several hundred cases, four cases of toxic symptoms with one death from the use of kharsivan and novarsenobenzol. More recently, however, the use of these drugs is reported in 5,000 cases from military hospitals, with no deaths and only a very few instances of transitory toxic symptoms. This closely corresponds with the experiences of the original salvarsan. § 117.

At the Lock Hospital (male) 1,000 injections of "galyl" have been given with as good results as salvarsan; there was no arsenical poisoning.

§ 118. *Combined Treatment.* This was introduced by Neisser, combining periodic intravenous injections of salvarsan with an intervening course of five intramuscular injections of insoluble mercury, or 30 inunctions. This has proved highly satisfactory to most experts. If commenced early and persisted with long enough, beginning in the primary or even early secondary stages, it will in the majority of cases prevent further symptoms and produce permanently negative blood tests. In some cases where mercurial treatment has failed, the arsenic will sterilize the blood stream, preventing dissemination and rendering the patient non-infective.

These drugs cannot, of course, restore tissues which have been destroyed and replaced by fibrous tissue. They cannot therefore cure established disease of arteries or nervous system; but they may prevent further inflammatory change.

Iodides are still useful in the absorption of tertiary products (gummata). Since parenchymatous syphilis (parasyphilis) did not yield to anti-syphilitic treatment, it was supposed that such affections were post-syphilitic; now that they are known to be actually syphilitic, it was hoped they would react to salvarsan. There is, indeed, some evidence that locomotor ataxy may be benefited by the intensive treatment; in this disease also the replacement

of some cerebro-spinal fluid by salvarsanised serum has been found beneficial. But similar treatment of the brain has not been found of any use in cases of general paralysis. *This result emphasises the necessity of early intensive treatment.*

§ 119. *Congenital syphilis* is treated along the same lines. The syphilitic mother, with experience of abortions, still-births and infant deaths, may produce healthy children if systematically treated. Syphilitic infants respond remarkably well to treatment, symptoms often subsiding with triumphant rapidity.

§ 120. In treatment, the intelligent co-operation of the patient is essential. The necessity of early and sufficiently long treatment should be impressed; also the danger of infecting innocent persons, and specially women, by whom disease is transmitted to offspring. Ignorance is largely the cause of spread of disease; therefore *cards of instruction should be given to all patients.*

§ 121. The Commissioners suggest a form of instructions, including all the main practical points to which the patient should attend; they consider that a moral obligation should be urged on all doctors to hand these cards, which should be provided at public expense, to every syphilitic patient, private or otherwise.

GONORRHŒA.

§ 122. *Males.* Gonorrhœal infection spreads backwards from the urethral orifice; serious complications do not occur till the posterior parts are involved; therefore early treatment is of the utmost importance. Nitrate of silver is most deadly to the gonococcus, but unfortunately it sets up severe irritation of the tissues also; other silver compounds, less irritating—protargol, argyrol, argentamine, ichthargol—are used in 1% or 2% solutions as injections. These may increase the discharge and the pain for a time, but produce good results if used discreetly with the hearty co-operation of the patient. The older treatment by sedative mixtures, without urethral injection, during the early stage, permitted the advance and establishment of the infection; now the object is the dislodgement of the infection at the earliest moment. If infected persons present themselves early enough, the disease can be aborted. On the decline of the symptoms, injections should still be used until no organisms are found by the

§ 123. microscope on most careful examination. In this disease also *cards of instruction are recommended* to be provided to all patients at public cost.

§ 124. *Females.* In the case of women also, early recognition and treatment are fundamental, while the disease is

arsenic-phosphorus compound, the use of which has met with success. The licences of all these were made subject to biological tests by the Medical Research Committee (National Health Insurance), which accepted the responsibility from the Board of Trade. Their first report describes the measures taken to safeguard the preparation of the drugs, explaining that the manufacturers' tests were supplemented by the same biological tests which were found adequate at the Ehrlich Institute. These tests showed that the problems of manufacture had been overcome, and this opinion was confirmed by clinical reports from special hospitals.

Mr. Lane published in 1915 (May), after experience of several hundred cases, four cases of toxic symptoms with one death from the use of kharsivan and novarsenobenzol. More recently, however, the use of these drugs

§ 117. is reported in 5,000 cases from military hospitals, with no deaths and only a very few instances of transitory toxic symptoms. This closely corresponds with the experiences of the original salvarsan.

At the Lock Hospital (male) 1,000 injections of "galyl" have been given with as good results as salvarsan; there was no arsenical poisoning.

§ 118. *Combined Treatment.* This was introduced by Neisser, combining periodic intravenous injections of salvarsan with an intervening course of five intramuscular injections of insoluble mercury, or 30 inunctions. This has proved highly satisfactory to most experts. If commenced early and persisted with long enough, beginning in the primary or even early secondary stages, it will in the majority of cases prevent further symptoms and produce permanently negative blood tests. In some cases where mercurial treatment has failed, the arsenic will sterilize the blood stream, preventing dissemination and rendering the patient non-infective.

These drugs cannot, of course, restore tissues which have been destroyed and replaced by fibrous tissue. They cannot therefore cure established disease of arteries or nervous system; but they may prevent further inflammatory change.

Iodides are still useful in the absorption of tertiary products (gummata). Since parenchymatous syphilis (parasyphilis) did not yield to anti-syphilitic treatment, it was supposed that such affections were post-syphilitic; now that they are known to be actually syphilitic, it was hoped they would react to salvarsan. There is, indeed, some evidence that locomotor ataxy may be benefited by the intensive treatment; in this disease also the replacement

§ 129. The voluntary hospitals give better accounts; all the London hospitals have facilities for Wassermann tests, but only one-third of the provincial hospitals (Dr. Johnstone's report). Since this report there is an increase in clinical laboratories available for the purpose.

§ 130. Public health authorities in some areas have provided for examination of specimens; but this is not so in the majority of areas.

§ 131. Soldiers and sailors are better provided for in this
§ 132. respect than any other section of the community. In prisons there are not adequate arrangements for diagnosis.

§ 133. (2) *Facilities for Treatment.* The upper and middle classes ought to be in a position to secure adequate treatment of the best kind for V.D., except for two hindrances; first, shame leads them to quacks, and secondly the training of medical students has not been adequate as to the seriousness of V.D. and as to details of treatment. Patients, also, are not thoroughly warned of the dangers to themselves and their families if not sufficiently treated.

§ 134. The National Insurance Act deals with about one-third of the total population of the Kingdom. Each insured person is entitled to medical and sickness benefit when ill. Persons suffering from V.D. are entitled to full *medical* benefit as for other diseases, but they are not qualified for *sickness or disablement* benefit, under the Model R[illegible]
withheld [illegible]
miscondu[illegible]
sick pay the exact disease has to be stated; so persons suffering from S. or G. do not seek certificates for sick pay; how far they are also deterred from seeking medical treatment from panel doctors cannot be stated. They probably go to hospitals, other doctors, or quacks. *The existing rule deters patients from seeking prompt and thorough treatment, and is contrary to public interest.*

§ 135 There is no evidence that the panel doctors do not in this respect give as much care to their panel patients as to their private clients. The insured person, however, is only entitled to receive treatment under the Act when such treatment "can be properly undertaken by a practitioner of ordinary competence." This limitation is of importance with re[illegible]

§ 136. or its substitutes. [illegible]
of an ordinary ge[illegible]
drugs intravenously. [illegible]here is no doubt that some panel doctors are actually using salvarsan in their practice, and it is hoped that, with improved training of students, a far larger number will be in a position to utilise these

important drugs, for which training in technique is quite necessary.

§ 137. *Voluntary Hospitals.* There is a consensus of evidence that accommodation in general hospitals for treatment of early cases of S. and G. is wholly inadequate. Efficient early treatment would liberate many beds now occupied by advanced later cases.

Some more progressive hospitals have recently made such provision, but it still is generally true that facilities are wholly inadequate, and that the out-patient departments are not organised for the purpose of early treatment of V.D.

It is generally true that patients suffering from early V.D. are not encouraged to attend general hospitals. The treatment of such patients is contrary to the statutes of some hospitals; these nevertheless deal with the later effects of S. and G., which might have been prevented by early treatment.

§ 138. At certain smaller towns, the general hospitals, with no medical school attached, do little by way of scientific diagnosis or treatment. In some the statutes forbid treatment of contagious disease, and at others it is thought that subscribers would object to such treatment on moral grounds. The Commissioners hope that this attitude of mind will, a[illegible] ity is not encouraged [illegible] through immorality,

§ 139. Special hospitals have done and continue to do excellent work in the treatment, and, therefore, in the prevention, of disease. But there are only three such special hospitals, in London, Glasgow, and Dublin.

§ 140. In Poor Law institutions it is difficult to find the extent to which V.D. is treated, but from samples, in which information was obtained, it is judged that the number of cases treated is small in the London area, but greater in the provinces. If the late results of S. and G. are included, on the whole a large number are treated by the Poor Law authorities. Of the 1,861 deaths returned as due to syphilis 27% occurred in Poor Law institutions, of which a large proportion were infants. Dr. Johnstone, who visited 35 institutions, chiefly in the provinces, tells us that special wards are provided in them for infective cases, while the non-infective are in the general wards. The venereal wards are good and well administered; the patients are well treated; in one or two of them blood tests are done on a small scale and salvarsan given. But speaking generally he finds the workhouses unsuitable for the application of modern therapy; the infirmaries

lack laboratory accommodation, and the staff is too limited for the additional work.

§ 141. *Increase of facilities for diagnosis* This depends upon organisation, equipment and staffing of pathological laboratories. In 1914 £50,000 was voted for laboratory facilities with a view to disease in general. This was intended as a grant in aid to the local authorities, who were each to submit schemes to the L.G.B. for laboratory provision in their own areas, of the cost of which the Treasury was to defray 75%. The Commissioners approve this scheme of the Local Government Board, inasmuch as it is important that the diagnosis of V.D. should be dealt with in the same laboratories as disease generally; such an arrangement would be both efficient and economical. In several of the large provincial towns, their universities undertake the work of diagnosis of disease in general at a fixed sum per annum. This co-operation is the cheapest way of securing efficiency, and also has a wholesome educative effect on the communities in respect of public health methods. Where [illegible] nereal diseases [illegible] could secure [illegible] l hospitals in diagnosis (clinical and otherwise) and treatment. Many hospitals in London and elsewhere have good pathological laboratories in close touch with clinical work; the Lock Hospitals also would prove a useful part of such a scheme. *All borough and county hospitals, which are large enough, should be encouraged to provide laboratories with a salaried pathologist, so as to become pathological centres for the county or district.*

§ 142. *Increase of facilities for treatment.* It is necessary for either diagnosis or treatment that a patient should seek the advice of a doctor. Early diagnosis and treatment are urgent needs. Free and simple access to medical assistance at the earliest moment will remove the tempta-

§ 143. tion to resort to quacks. Such facilities are shown to be exceedingly deficient except in the Navy and Army. Medical practitioners are, naturally, unfamiliar with modern methods, and do not appreciate the importance of these diseases; institutional provision also has been inadequate. Recent advances in knowledge have quickened the interest of the medical profession and the public; but *no satisfactory system can be organised unless the responsibility is shouldered by the State.*

Medical practitioners must, indeed, be the first line of defence; but, in view of the terrible consequences of these diseases, centrally concerted action is necessary. This

can best be done through the co-operation of the larger local authorities with the Local Government Board, as in the case of tuberculosis and other diseases.

§ 144. The Commissioners, therefore, recommend *that the State should invite the county and borough councils, under the Local Government Board, to undertake schemes for dealing with V.D.*

Under such schemes, institutional treatment should be available for the whole community, and so worked that it would be used without hesitation. Special centres for V.D. are not desirable, but rather *special wards in general hospitals, with special out-patient arrangements for convenient evening out-patient clinics.* The resources of the hospitals need not be encroached on.

§ 145. In England and Wales 28,000,000 of people live in urban districts, and 8,000,000 in rural. The rural population is mostly within reach of urban hospitals. There are 1,137 sanitary districts for the urban population. Half of it, however, is included in 61 sanitary districts. All towns of more than 100,000 have one or more general hospitals, which serve surrounding districts. The majority of counties have hospitals with 100-200 beds or more, and generally other smaller hospitals as well.

§ 146. Enquiry in selected areas gave rise to the opinion that such county and other general hospitals might well become centres of treatment of these diseases, so as to cover the greater part of the country's requirements, supplemented, where needful, by special arrangements.

§ 147. The existing hospital facilities, with any necessary extensions, should suffice to meet the need of prompt and efficient treatment; and their full utilisation should be the first task. The majority of hospitals, it is believed, would be willing to take on the work; their readiness to co-operate with the local authorities has been shown in the case of tuberculosis.

§ 148. *It is, therefore, advised that general hospitals be approached with a view to treatment of V.D.*

§ 149. Such institutional treatment should be available for the whole community. The main objects are to secure that patients shall apply early and continue till free from infection. Gratuitous treatment for all will remove much of the difficulty. Persons who appear able to pay might be advised to go to private doctors, *but if they are unwilling, they should not be refused treatment.*

§ 150. *Nor should treatment be confined to persons resident in a given area.* A given hospital might serve several areas, or patients might come from areas having no arrange-

ments; but no difficulty need arise if adequate assistance is given by the Exchequer.

§ 151. Any such scheme must be so framed as to develop the capacities of practitioners with regard to V.D., so as to make them efficient safeguards to the community, and also to secure their effective co-operation with the authorities and hospitals. *Medical students and practitioners should always have access to the treatment of these diseases* at any institution working in connection with the local authorities.

§ 152. This will increase the skill of the practitioner and panel doctor, and enable fuller advantage to be taken of the provision by which insured patients are entitled to such treatment as can be given by a practitioner of average skill. Institutions will thus be better able to refer cases to general practitioners.

§ 153. The high cost of salvarsan and its substitutes deters practitioners from using them. The Local Government Board has power to authorise supply free to medical practitioners; *this power ought to be exercised.* As a safeguard against waste, the drug ought only to be supplied to private doctors after consultation with M.O. in charge of institutions.

§ 154. The urgent necessity of treatment being open to the whole community, gratuitously and irrespective of residence in given areas, leads to the conclusion that *the greater part of the cost must be borne by the Exchequer;* but it is also desirable that the local authorities should bear some portion of the cost of a scheme which they themselves administer. It is, therefore, proposed that the *Exchequer bear 75% and the local authority 25% of the cost.* The distribution of grants should be in the hands of the Local Government Board, which should lay down the conditions of grants, approve the local schemes,

§ 155. and see that they are properly carried out. It should also be empowered to deal with hospitals concerning any difficulties arising between them and the local authorities.

NOTIFICATION OF VENEREAL DISEASES.

§ 156. This difficult question has been seriously considered. In case of certain diseases prompt notification to the sanitary authority has for some years been required. The existing law, and its effect in controlling disease, is discussed in App. vi. (full Report).

§ 157. Notification is primarily a measure for the protection of all members of a community; it aids in the discovery of the source of a disease, in the prevention of its spread, and in the removal of unfavourable conditions; statistical

information is a secondary consideration, though important.

§ 158. Notification was first applied (Infectious Diseases [Notification] Act, 1889) to certain acute infectious diseases, and is mainly used for prevention. The medical officer of health, on being informed, must immediately visit and inquire into the cause and conditions of outbreak, taking steps to prevent its spread. Local authorities are empowered to take compulsory measures, such as disinfection and sometimes removal of patients to hospital. The patient may be subjected to penalties for showing himself in public (streets, shops, conveyances), and may be prohibited from exercising occupation or business which endangers the public. These provisions apply, in practice, almost exclusively to the acute infectious diseases, though the wording of the statute might cover other diseases also.

§ 159. Local authorities are empowered to provide hospitals for certain diseases, and have done so. This facilitates prompt isolation, and treatment of patients who could not be well treated at home. The system is of direct benefit to the individual as well as the community. This appears also in respect of tuberculosis, which is notified with a view to treatment of the individual. The object also of notification of ophthalmia neonatorum was the prevention of blindness to the child. Statistical information is an incidental advantage.

§ 160. The application of the principle to V.D. has been widely discussed in evidence. The advantages have been presented mainly under two heads—(1) its educational effect in emphasising the infectious and dangerous nature of

§ 161. the diseases, and (2) as an aid to the removal of conditions favourable to propagation, such as bad housing and overcrowding.

§ 162. But notification must be based upon the assistance which it would lend to the treatment of the individual and upon the consequent protection to the community, not upon [illegible] question is, would [illegible] early and contir[illegible] entials of success.

§ 163. Most witnesses anticipated reluctance to notify on the part of medical attendants, and, if it were enforced, increased resort by the patients to unqualified persons. To counter this, it was suggested that the unqualified persons also should notify, so that their diagnosis should be professionally confirmed, and correct treatment initiated.

Under the Infectious Diseases (Notification) Act of 1889, the onus of notifying is thrown on lay persons as well as on medical men. But this part of the Act is inoperative, for it has been found difficult to prove that the lay person actually knew that the illness was a notifiable one The only other instance of notification being required from a non-medical person is ophthalmia neonatorum, when the midwife has to notify; but she is also bound by the Midwives' Board to notify the local supervising authority of any inflammation or discharge from the infant's eye, however slight; therefore she has only to notify, under L.G.B. regulations, when no doctor is available. Parents are in some places bound by local Acts to inform the head of their children's school when infectious disease (suspected) occurs in their family. This local rule is too recent to say whether it will be successful.

§ 164. Notification, to be useful, must be thorough. If medical men alone are to notify, the success depends on (1) what proportion of cases seek medical advice, (2) whether the doctors will actually notify. This last will depend whether penalties follow failure to notify, and whether the doctor thinks notification will do the patient any good. In the case of acute infectious disease it *does* good to the patient and family, and it relieves the medical attendant from the anxiety of treating patients in

ified person is likely
Under the L.G.B.

regulations for notifying tuberculosis, no penalty, restriction, or disability is involved as regards the patient's employment or occupation on the grounds of this com-

§ 165. plaint. It is thought, however, that no such special conditions could be devised which would secure a general willingness on the part of the medical profession to notify V.D.; and partial notification, or its limitation to particular classes, would produce a sense of injustice. But

§ 166. the greatest objection to V.D. notification is that it would deter sufferers from treatment and drive them to the quack. Innocently acquired as these complaints often are, specially in women and children, they are regarded as involving a social stigma; and the fear of exposure, however unfounded, will surely induce concealment.

The danger of more concealment and more resort to quacks was admitted by advocates of notification; but since both operate so largely now, the risk of increase was not thought by them a sufficiently important matter. They pointed out that the same objections were once raised against notification of scarlet fever, and have now disappeared.

§ 167. The Commissioners consider that the question depends upon psychological probabilities which cannot be certainly predicted. Notification might in some cases lead to better, earlier, and longer treatment; it would have a powerful educative influence; and, if universally applied, it would supply statistical information.

But they are impressed with the difficulty of securing universal notification, and with the injustice of a partial system; and they consider that *compulsion to begin or to continue treatment would defeat the main object*, viz., to secure early diagnosis and treatment for the greatest number.

§ 168. It is possible that when the proposed facilities have been for some time in operation, and when the public has become alive to the character of the diseases, notification will have to be reconsidered and may even be demanded. *At present the need is to supply the obvious existing deficiency of facilities.*

§ 169. There remains the possibility of anonymous notification, for purely statistical purposes, not to be followed by any administrative action. If reliable statistics could be obtained in this way, it would be a great gain; but in Denmark, where a serious attempt at this has been made, the results are far from satisfactory (by overlapping and duplication). *Statistics, however, should be kept of the number of patients provided with salvarsan* at public expense; and *all the institutions* which are given grants for diagnosis and treatment of V.D. *should keep accurate aggregate statistics.*

§ 170. Practitioners cannot be asked to render statistics of cases of venereal diseases which come to their knowledge; but the duty lies upon them of giving warning to persons vitally interested, in cases where immediate danger threatens to individuals or to the public.

DETENTION OF PERSONS SUFFERING FROM VENEREAL DISEASES.

§ 171. The danger of V.D. in its contagious forms has led to a demand for detention in certain cases, till the subjects are non-infective. It is urged that partial free treatment, terminable at the will of the patient, is ineffective and wasteful.

§ 172. The application of compulsion to cases where there is no sense of responsibility or restraint, even while infectious, can be defended on strong public grounds. The

§ 173. objections to any form of compulsion are:—(1) That it curtails personal liberty, (2) that it may fail of its object. As to personal liberty, this is already curtailed by former Acts of notification; yet in the case of V.D. in general, there is reason to fear that it might operate unequally.

As regards failure in serving its purpose, this comes about mainly from the deterring effect of compulsion. In Denmark people who are treated in hospital for V D. may be detained, but appear in fact not to be so detained. It is

§ 174. concluded that *in general compulsion is not practicable; but there are certain cases of justifiable exception.*

§ 175. (1) *Poor Law Patients.* Patients from V.D. frequently leave infirmaries while still highly infectious. The superintendents of two large Metropolitan infirmaries stated that, though aware that many inmates on leaving would be a fruitful source of danger, they had no alternative but to let them go at will.

§ 176. The R.C. on Poor Law were deeply impressed with this evil condition, and the Majority Report recommended that safeguarded *powers of detention should be given over patients who were certified to be dangerous. This view is*

§ 177. *endorsed by the present Commissioners.* A provision of similar character, with regard to mental or infectious disease in general is already contained in the Poor Law Amendment Act, 1867; but there are doubts whether it applies to V.D., and it has not been acted upon in such cases. It is recommended that *it be settled by legislation that this provision include venereal diseases.* If the wards are made more cheerful and provided with modern requirements, only a minority of such cases will need to be compulsorily detained.

§ 178. (2) *Prisoners.* At present half of the prisoners known to be affected with V D., in the prisons of both England and Scotland, are discharged while still in an infective condition. The actual numbers are even greater than those given, owing to the insufficient character of examination of prisoners, specially short-term prisoners.

§ 179. It is now urged that the *examination of prisoners should be more thorough,* women being examined, if necessary, by a woman-doctor; this is in itself desirable in order to determine what work is suitable for them.

§ 180. Provision for modern diagnosis and treatment should be made at prisons. If there is doubt whether Prison Commissioners have power to subject prisoners to blood-test and injection of salvarsan, this power should be given.

§ 181. These modern methods have practically not been used up to the present, but Sir Herbert Smalley is perfectly willing to advocate their use if proved safe and effective. Such changes are naturally undesirable to adopt prematurely in so large an administration as that of prisons; moreover, prison medical officers will be better instructed in such modern methods in future; and they should have

full power and authority to apply proper methods of diagnosis and treatment.

§ 182. The case for detention of prisoners affected with V.D. is strong. In Denmark prisoners are treated before undergoing their punishment; in N.S.Wales detention is authorised till they are non-infective.

§ 183. But though the case be strong, it is considered impracticable to apply a general rule for detention. The punishment in many cases would be out of all proportion to the offence; in many cases disease is acquired innocently. The detention for minor offences where V.D. exists, would be greater than for worse offences without

§ 184. manifest V.D. Sir H. Smalley considered that it would be more expedient to rely not on detention, but on the co-operation of Discharged Prisoners' Aid Associations, combined with a general system of free treatment.

§ 185. *The Commissioners reluctantly accept this opinion.* They consider that such discharged prisoners should be recommended to seek treatment at a clinic, and that representatives of the Association should keep in touch with them to secure their continued attendance.

§ 186. *Navy and Army.* A certain number of men are invalided every year from both services on account of V.D.; a proportion of them are still infectious; but the numbers are not large enough to be of public importance. In the Army, there is no power to detain such men, but there is power to continue their treatment, though discharged; and as a rule they do complete such treatment.

§ 187. *This Commission recommends that men, whose time is not expired, should be detained till non-infectious,* and that time-expired men should be encouraged to continue treatment at the Service Hospital, or some other hospital under the general scheme. *A similar procedure is recommended for the Navy,* with extra accommodation where necessary.

UNQUALIFIED TREATMENT.

§ 188. Unqualified persons are largely resorted to on account of the fear of disgrace and the resulting desire for con- [illegible] o treatment. [illegible] poor. The [illegible] e as to the seriousness of these complaints. He promises quick cure, with secrecy, convenience, and cheapness. The work is

§ 189. done by chemists, herbalists, and through newspaper and other advertisements.

This evil is certainly widespread, but whether it is increasing is doubtful. A Parliamentary Paper of 1910, based on the returns of Medical Officers of

Health throughout the country, stated that treatment of these diseases in many of the great towns was largely in the hands of unqualified persons, and that so-called specialists were on the increase. Witnesses before the present Commission thought there was now a tendency to decrease.

§ 190. *Unqualified practice in these diseases is a disaster,* and its existence is a main hindrance to the eradication of V.D.

Dr. Johnstone (Report Cd. 7029—1913) states that he found medical men rarely consulted till after some weeks trial of herbalist, chemist or advertised cure. The absence of proper treatment and warnings has led to disastrous results The Parliamentary Paper of 1910 summarises the opinions of the Medical Officers of Health; it depicts bad results, wrong diagnosis, delay in treatment, and, for want of warning, communication of disease to others. Patients come under doctors only in the secondary or tertiary stages of syphilis.

§ 191. This negatives early treatment of the right kind, which is the main object. Through the quack the precious early days are lost when, by sound treatment, disease can be eradicated. It is the worse that symptoms can be allayed, without cure being effected. It makes later treatment more difficult, protracted and expensive, and risk to others is greatly increased. Further, by incorrect diagnosis of syphilis, wilful or ignorant, suffering and depression are induced, leading sometimes even to suicide.

§ 192. If the competence of herbalists is alleged, reference to the evidence given by a representative of the National Association of Herbalists will readily dispose of that idea

§ 193. The education of the public and the provision of free treatment will tend to diminish the evil of quacks. In the Army, where instruction and treatment is well given, there is hardly any resort to unqualified practitioners. In

§ 194. Denmark and Italy, where free treatment is given and availed of with confidence, there is little scope for quacks.

§ 195 Nevertheless, as was recommended by the Select Committee on Patent Medicines, *all advertisements of remedies for Venereal Diseases should be prohibited.* Actual repressive measures are justified by the seriousness of the case; but *penal measures against unqualified practice in V.D would at present prove inoperative.* The prohibition of advertisements has no such objection and would be a great help.

MARRIAGE AND COMMUNICATION OF DISEASE.

§ 196. (1) *Should active disease disqualify for marriage?* Ideally, yes; on account of danger to wife and offspring.

While this is well known as regards syphilis, it is here
§ 197. specially emphasized also as regards gonorrhœa, which, till thoroughly treated, should also be considered as a hindrance to marriage. It causes to women sterility and "suffering incalculable" (Sir T. Barlow). Mr. Lane considered that no person who had suffered from any venereal disease ought to marry without competent examination. Sir W. Osler was also of opinion that any legislation should apply equally to syphilis and gonorrhœa. So also Dr. Routh. Mr. Frank Kidd, as well as Colonel Gibbard, pointed out that such medical examination and advice is more difficult in cases of G. than S.

Whatever measures, therefore, can be taken, should apply equally to both diseases.

§ 198. The importance of preventing marriage, while in an infective condition, is more widely appreciated in the case of syphilis than with gonorrhœa. Among male patients of practitioners there is also a greater desire than formerly to ascertain whether they can safely marry; and their general willingness to act on advice given is testified by Drs. Pringle, Sequeira and Galloway.

§ 199. There is, however, still much ignorance as to the dangers of marriage of infected persons, and the future miseries which it may entail. Unfortunately, when such evils arise, they do not serve as a warning to others, since their cause is not recognised.

§ 200. Various suggestions as to possible legislation were discussed in evidence, so as to secure competent certification of safety before marriage. But the difficulty always appears that it is not possible, on account of concealment, to ascertain what persons are actually infective. *It is*
§ 201. *decided that at present it is not possible to organise a satisfactory method of certification of fitness for marriage.*

§ 202. (2) *Protection of the Medical Adviser.* Many medical witnesses emphasized the duty of the medical adviser to warn patients of the results of marrying while still infective; and happily there is good evidence that such warnings are increasingly heeded by patients both in private
§ 203. and hospital practice (Mr. Kidd). But great difficulty arises where the advice given, say, to an intending husband, is not likely to be followed, and where, in spite of warning, the marriage is about to proceed (Sir V. Horsley, Sir D. MacAlister, Sir Clifford Allbutt).

§ 204. Yet to communicate with the intending bride, or her parents or guardians, is not only regarded as a breach of professional confidence, but may entail to the practitioner a prosecution for libel or slander. The difficulty, indeed,

is rather magnified by some witnesses; for in a civil suit, proof of the truth of an allegation is a complete defence, and in criminal proceedings the truth of the allegation combined with a plea of public benefit, endorsed by the jury, entitles to a favourable verdict. Yet the accuracy of the diagnosis would have to be proved; and the award of costs would be poor compensation for the time and trouble entailed in even a successful defence. A further difficulty arises when he has to prove that the patient was at the time not cured or not fit to marry—a highly speculative issue. The plea of good faith, in warning the parties, so as to prevent disaster, would not give the practitioner even the qualified protection sometimes accorded under the doctrine of privileged communication.

§ 205. *A change in the law is required;* and it is recommended that *such a communication when made bonâ fide* to parent, guardian, or other person directly interested, and with the object of delaying or preventing the marriage of an infective person, *shall be deemed a privileged communication.* This is supported by the President of the Probate Division.

§ 206. (3) *Venereal Disease as a ground for Nullity of Marriage.* The question whether the fact, that one of the parties to a marriage is at the time of marriage suffering from V D in a communicable form, should be ground for a declaration of nullity, came before the Royal Commission on Divorce. That Commission decided that, if the suggestion were put into force, it would aid the interests of morality and health, and of preventing marriage under improper circumstances. They recommended that if the fact of one party being so diseased was not communicated to the other party, who did not know of it at the time, such other party should be entitled to a decree of nullity, providing the suit is instituted within a year of marriage and that no marital intercourse has taken place since the discovery. The Divorce Commission was unanimous on this, and the minority expressly assented. Sir Samuel Evans objected to it on the grounds (1) that it takes away from the man the chance of living with his wife afterwards, and (2) that the child, or possibly two children, would be illegitimate.

§ 207. *The present Commission adopts in substance the recommendation of the former Commissioners.* They desire it laid down that the *presence of infectious V.D. constitutes incapacity for marriage,* whether known or not The question affects not only the parties themselves, but the public health, birth-rate, death-rate and well-being of children. The process should be made available for all persons, however poor.

§ 208. This would enormously strengthen the powers of the medical profession in preventing improper marriages, and would be of special service in dealing with less responsible institutional patients.

§ 209. If such a nullity decree renders the children illegitimate, *it should be provided by statute that the disabilities of illegitimacy should not follow.* The Court should be guided, in pronouncing a decree of nullity or not, by whether such a decree is necessary in the public interest, and should have this discretion. The Court also should have power to make an order for guardianship and maintenance of the children, and also for their treatment, under the schemes recommended.

§ 210. (4) *Prevention of communication of Disease between Persons Married or Unmarried.* What about communication of disease acquired subsequently to marriage? The law is not quite clear on the point. Technical "cruelty" is "such conduct by one married person to the other . . . . as makes it unsafe, having regard to the risk of life, limbs, or health, bodily or mental, for the latter to live with the former." This clearly includes infecting the other party "knowingly or negligently," and the infected person might obtain an order for judicial separation—an inadequate remedy, specially among the poor.

§ 211. Recently, however, the law has gone a step further. The Divorce Commission (§ 353) states that in the case of a wife's petition, proof of adultery as well as cruelty being required, "a venereal disease acquired after marriage is practically a ground of divorce, being almost always a proof of adultery." The President of the Divorce Court (Browning v. Browning) went a step further, in holding that all the wife had to do, to obtain divorce, was to prove that she had been infected and had not had intercourse with any other man. That throws on the husband the onus of proving that he had not infected the wife "knowingly, wilfully, or recklessly." This decision has not been appealed from, and the decision stands until a Court of Appeal decides the same question differently. Therefore the Commission *does not recommend any legislation.*

§ 212. Can any steps be taken to prevent communication of disease between unmarried persons? This would include (1) promiscuous sex relations, and (2) habitual concubinage, with illegitimate offspring. Among illegitimate children there is undoubtedly a greater proportion of syphilis (inherited) and gonorrhœal infection from the mother, than among the legitimate. *As to this class, however, no legislation is practicable,* either for children

or parents. It is only hoped that the benefits of enlightenment, as to the dangers, and of the recommended scheme of treatment will at length reach this class of parents and children also.

EDUCATION.

§ 213. *Medical Education in Venereal Diseases.* The medical evidence points to deficiency in the average education of medical men in the diagnosis and treatment of V.D. Many young medical men feel this deficiency themselves, specially in regard to modern methods; it was also stated to be the case with young qualified men entering the R.A.M.C.

§ 214. The capacity for early detection and treatment of patients while in the readily curable stage is of the utmost importance; its absence is of grave import to public health.

§ 215. How is improvement to be obtained? The separate treatment of V.D. as a compulsory subject of the curriculum with special instruction was advanced by some witnesses largely engaged in treatment of syphilis; this, therefore, calls for respectful attention. Others, however, holding high positions in the world of medical education represented that the curriculum was already so overloaded with subjects that further special additions were practically impossible. One of these witnesses admitted the deficiency, and suggested that each large general hospital should have an out-patient genito-urinary clinic for treatment of and instruction in these diseases.

The Commissioners admit the difficulties of special compulsory courses. Syphilis, being concerned with disease of every organ in the body, ought to be capable of study alongside of other medicine and surgery, so also ought the late effects of gonorrhœa But in fact the student does not generally have adequate opportunity of acquaintance with the differential diagnosis of syphilis in its earliest stage nor of the skin-diseases caused by it. Such opportunities, however, will be multiplied if the recommendations as regards general hospitals become operative. The Commissioners *refrain from advising a special compulsory course*, and only urge that, by some means, adequate instruction be secured for each student.

§ 216. *Examination questions should be systematically set* on syphilis and gonorrhœa, so as properly to test each man's knowledge. This, it is stated by the President of the Medical Council, is already done to so large an extent, that candidates cannot fail to be aware of the importance attached to the subject, and the need of its study for their success.

§ 217. The evidence given in favour of a special department in hospitals will accord with the recommendation for special facilities in general hospitals. In these, medical students will both gain knowledge for themselves and render valuable aid in treatment.

Some witnesses urged that the skin diseases of syphilis should belong to the skin department rather than to a genito-urinary clinic. This is a matter for the internal economy of the hospital; but every medical student should attend a course of instruction in skin diseases.

§ 218. *Education of the public.* Great importance is attached to this aspect of the problem. The public ought to have fuller knowledge of these grave evils and their effects on the life of the nation: especially should instruction and warning be given to the young of the moral and physical dangers which may imperil them.

§ 219. The evils are largely due to lack of control, ignorance, and inexperience. "If venereal diseases are to be stamped out, it will be necessary not only to provide the medical means of combating them, but to raise the moral standards and practice of the community as a whole. Such instructions should be based upon moral principles and spiritual considerations, and should by no means be concentrated on the physical consequences of immoral conduct."

§ 220. As to instruction in detail. Children leave elementary schools at 14, and under that age detailed instruction is in every way undesirable. Schematic instruction, involving class-teaching, is strongly objected to by experienced elementary teachers. But differences of temperament are well marked, and also differences in the degree of knowledge obtained by children, often in undesirable ways. This is true, specially in overcrowded districts; while among better surroundings, children grow up in ignorance, carefully and often unwisely fostered by parents. In view of such conditions, the Commissioners *commend the practice of head teachers having special interviews* with pupils, when they leave school, or before that, if they show special need of guidance. *Such practice should become general.*

§ 221. This would lay a foundation for fuller instruction and effective help during the critical years of adolescence.

General education of the mass of the elementary school children goes no further. Evening continuation schools are voluntary; there something can be done, but knowledge and discretion on the part of the teacher is necessary. Properly constituted voluntary associations could give valuable help, both in such evening schools and in

factories and workshops. But here a high standard of efficiency and tact is indispensable, and the guidance of medical practitioners must be enlisted.

§ 222. In public and secondary schools the pupils stay till a much later age, and opportunities for instruction are far greater. *The subject ought to receive increasing attention from the headmasters and headmistresses* of such schools—one of the results hoped for by means of the publication of this Report. Much also remains to be done *in the universities* by way of instruction of undergraduates by those responsible.

In training colleges, *those who enter the teaching profession ought to be prepared to deal with these subjects*, and suitable action is called for by those responsible.

§ 223. In such educational efforts the active support of the responsible authorities is necessary. Great advance will be made when public attention is called to the urgency of the subject, and well-prepared teachers are forthcoming. Their personal initiative is of more importance than elaborate schemes, which, without personal competence, may do more harm than good

§ 224 It must, however, be remembered that *such instruction as can be given in no way relieves parents of the responsibility* which lies on them of warning and guiding their children, which they should be both able and willing to discharge—another reform which this Report ought to effect.

§ 225. Some literature has been produced on this subject which is well suited to deal with this difficult subject; many of the books and pamphlets, however, are unsound from a medical standpoint, while others are injurious from the manner of dealing with the question. Educational authorities should only countenance those publications which receive the *imprimatur* of the National Council

§ 226. for Combating Venereal Diseases Apart from educational authorities, much good can be done by those agencies already formed for promoting the welfare of the young, such as *The White Cross League* and *The Alliance of Honour;* great use should also be made of well-managed *boys' and girls' clubs, the Boy Scouts, Boys' Brigade*, etc. These agencies can also be active in securing proper advice and treatment for cases which come under their notice.

The active assistance and co-operation of *rescue and preventive agencies* is of great importance, in realising the full usefulness of the measures proposed. The provision of free treatment for all, makes it even more

sary that the young should be taught the paramount importance of a chaste life.

§ 227. In the Navy and Army instruction is, as a rule, given by medical officers, but its regularity appears to depend to some extent on the importance attached to the subject by the officer in command. *Every man should be warned* as soon as possible after joining, *of the gravity of venereal diseases*, and the warnings should be repeated at least once a year.

§ 228. Every practitioner should give every patient they know who suffers in this way, a card or leaflet of instruction (as above suggested); the same should be done at all hospitals, institutions, and clinics which deal with these ailments. They should be approved by the L.G.B. and supplied at public expense.

§ 229. This Report, will, it is hoped, have a wide educational effect, and help towards public enlightenment on the very grave danger to National Health arising from the prevalence of these diseases. It is also hoped that it will alter the mental attitude which still persists with regard to them. That the evils primarily arise from vicious habits is true, but it is equally true that large numbers of sufferers are absolutely innocent. Disease may be conveyed in a variety of ways not involving immorality; and *innocent wives and children form a large proportion* of the casualties.

A realisation of the facts may lead Approved Societies, which deny sick benefit to persons sick from their own misconduct, but admit to the benefits those who suffer from later results, which might have been prevented by early treatment, to revise their practice; hospitals also may be more willing to give thorough medical treatment to early cases where it is most effective.

A franker attitude towards these ailments would lead to less concealment, and less recourse to quackery, which only retards or prevents cure, and would thus assist in checking one of the worst evils that can afflict a community.

V.—SUMMARY OF RECOMMENDATIONS. § 230 (FULL TEXT).

§ 230. (1) Arrangements should be made for the confidential registration of the causes of death. The proposals of the Registrar-General are commended for consideration. (§§ 60-62.)

(2) The Notification of Births Act, 1907, should be *made universally operative*,[1] *and in the notification of*

[1] Since this recommendation was approved, the Notification of Births (Extension) Act, 1915, has been passed.

still-births a shorter period of pregnancy than 28 weeks should be taken into account. (§ 63.)

(3) The Local Government Board should devise a uniform system of records of sickness in hospitals and Poor Law establishments with the object of securing accurate statistical information as regards the prevalence of disease among persons who receive institutional treatment. (§ 66.)

(4) Statistics should be kept of the number of patients for whom salvarsan or its substitutes is provided at the public expense. (§ 169.)

(5) All institutions which undertake, with the assistance of grants from the Exchequer, the diagnosis or treatment of venereal diseases should keep and render available accurate aggregate statistics regarding these diseases. (§ 169.)

(6) Extended facilities should be made available for the diagnosis of venereal diseases by laboratory methods. The organisation of this service should be entrusted to the larger local authorities (county councils and county borough councils), and should form a part of the provision of laboratory facilities having for their object the prevention, diagnosis, and treatment of diseases in general. (§ 141.)

In any schemes framed by local authorities the fullest use should be made of the laboratory facilities at universities and hospitals. (§ 141.)

The cost of this service should be met as to 75% from Imperial Funds, and as to 25% from local rates. (§ 154.)

(7) Measures should be taken to render the best modern treatment of venereal disease readily available for the whole community, and the arrangements should be such that persons affected by these diseases will have no hesitation in taking advantage of the facilities for treatment which are afforded. (§ 144.)

(8) The organisation of these means of treatment should be in the hands of the larger local authorities (the councils of counties and county boroughs). These authorities should, subject to the approval of the Local Government Board, organise and carry into effect definite schemes for dealing with the diseases. (§ 144.)

(9) Institutional treatment should, as far as possible, be provided at general hospitals, and local authorities should, as the first step in the preparation of their schemes, approach the general hospitals in their areas with a view to making arrangements for treatment. (§ 148.)

(10) Treatment at any institution included in a local authority's scheme should be free to all. There should be no refusal to treat a patient who is unwilling to go to his own doctor. (§ 149.)

(11) The treatment afforded at any institution should not be restricted to persons resident in a particular area. (§ 150.)

(12) Special arrangements, such as evening clinics, should be made for the treatment of out-patients at hours convenient to the working classes. (§ 144.)

(13) Subject to proper safeguards, local authorities should be empowered to supply salvarsan or its substitutes gratuitously. (§ 153.)

(14) The obligation should be impressed upon all doctors who treat syphilis and gonorrhœa in institutions or privately to hand cards of instruction and warning to their patients. These cards should be in some such form as those given in the Report, and should be provided at the public expense (§§ 121 and 123.)

(15) Medical students and practitioners should have access, for educational purposes, to the treatment of venereal diseases at any institution dealing with these diseases as part of a local authority's scheme. (§ 151.)

(16) In any case in which a local authority refuse to make provision for treatment, the Local Government Board should be empowered to make arrangements directly with hospital authorities. (§ 155.)

(17) The expenditure on schemes of treatment should be assisted by grants from Imperial Funds. It is suggested that these grants should be equivalent to 75% of the expenditure incurred by local authorities. The Local Government Board should be responsible for the distribution of these grants, and should lay down the conditions subject to which the grants are to be paid. (§ 154.)

(18) The provisions of section 22 of the Poor Law Amendment Act, 1867, should be available to secure the detention, where necessary, of Poor Law patients suffering from venereal diseases. If necessary, the applicability of this section to the case of venereal diseases should be made clear by legislation. (§ 177.)

(19) Steps should be taken, wherever necessary, to render the wards in Poor Law institutions set apart for venereal cases suitable and cheerful. Facilities for the best modern treatment should be provided in these institutions. (§ 177.)

(20) The means for the diagnosis and treatment of venereal diseases by modern methods should be made

available in prisons. Where the medical officer of a prison considers that a local examination of a woman is necessary, it should be made by a woman doctor. (§§ 179 and 180.)

(21) Arrangements should be made through Discharged Prisoners' Aid Associations or similar bodies for some person to keep in touch with discharged prisoners suffering from venereal disease, with a view to securing that they avail themselves of treatment and continue the treatment as long as may be necessary. (§ 185.)

(22) Men in the Navy or Army suffering from venereal disease whose period of service has not expired should be detained until they are pronounced not infectious. If necessary, additional hospital accommodation should be provided. In cases where infectious men are entitled to claim their discharge, they should be encouraged to continue their treatment, and, where this treatment cannot be provided at a Service hospital, arrangements should be made for the treatment to be continued at a hospital or clinic working in connection with a local authority's scheme. (§ 187.)

(23) No system of notification of venereal diseases should be put in force at the present time. When experience has been gained of the operation of improved facilities for diagnosis and treatment, the question of notification should be further considered. (§§ 167-8.)

(24) The recommendations of the Select Committee on Patent Medicines regarding the prohibition of all advertisements of remedies for venereal diseases should be put in force. (§ 195.)

(25) The law should be amended to provide that a communication made *bonâ fide* by a medical practitioner to a parent, guardian, or other person directly interested in the welfare of a woman, or man, and with the object of preventing or delaying a marriage with a person who is in an infectious condition from venereal disease, shall be a privileged communication. (§ 205.)

(26) Statutory recognition should be given to the principle that infectious venereal disease constitutes an incapacity for marriage. The process should be made available for all persons, however poor. (§§ 207-8.)

If under the existing law the effect of a decree of nullity is to render the children illegitimate, the new statutory enactment should provide that the disabilities attaching to such a condition should not follow. (§ 209.)

(27) Whether by means of compulsory attendance at a course of instruction in venereal diseases or otherwise, it should be rendered certain that every medical student has

adequate practical instruction in these diseases. Every medical student should attend a course of practical instruction in skin diseases. (§ 215.)

(28) Questions relating to syphilis and gonorrhœa should be systematically set in medical and surgical examinations, so that the knowledge acquired in these diseases by candidates for examination may be tested. (§ 216.)

(29) More careful instruction should be provided in regard to moral conduct as bearing upon sexual relations throughout all types and grades of education. Such instruction should be based on moral principles and spiritual considerations, and should not be based only on the physical consequences of immoral conduct. (§ 219.)

(30) In elementary schools detailed instruction in class on sexual matters should not be undertaken. (§ 220.)

(31) The practice, which has been followed by some head teachers, of having private interviews with pupils before they leave school, or if they show special need of guidance, in order to give moral instruction and to offer warnings against probable temptations, should be general. (§ 220.)

(32) Instruction in these subjects should be provided in evening continuation schools and in factories and workshops. For this purpose, the aid of properly constituted voluntary associations should be enlisted. A high standard of efficiency and tact should be required in the representatives of any voluntary association employed and the guidance of medical practitioners should be secured. (§ 221.)

(33) Students in training colleges should be carefully prepared to enable them to deal with these subjects. The best means of giving this instruction should be carefully considered by those who are responsible for these institutions. (§ 222.)

(34) Every man on joining the Navy or Army should [illegible] warned of the grave [illegible] volve, and the warn- [illegible] intervals of not less than a year. (§ 227.)

(35) The National Council for Combating Venereal Diseases should be recognised by Government as an authoritative body for the purpose of spreading knowledge and giving advice in regard to the question of venereal diseases in its varied aspects. (§ 236.)

Educational authorities should use for purposes of instruction only such literature as has received the imprimatur of the National Council. (§ 225.)

§ 231. The thanks of the Commissioners is expressed to the various departmental officials who have collated the information required, and to the various witnesses, British and foreign, many of whom had been at great trouble in the preparation and delivery of their evidence. Special acknowledgment is made of the eminent services rendered by the Secretary of the Commission, Mr. E. R. Forber.

GENERAL CONCLUSIONS. §§ 232-239

§ 232. The evils of venereal diseases cannot be too seriously regarded, in view of their far-reaching effects, both individual and racial They involve heavy loss both of actual and potential population, productive power and actual expenditure. Accurate estimates of prevalence are not possible, but relative prevalence, social and geographical, can be fairly determined.

§ 233. By early and good treatment the diseases are controllable; recent discovery makes this more possible than formerly; but at present adequate facilities do not exist. The prime object is to have every infected person treated at the earliest possible moment, at present treatment is too often deferred.

§ 234. Governmental action is necessary, as the problem is national No drastic remedies are proposed and no compulsion, except in special cases. The measures proposed involve extended facilities for free and expert diagnosis and treatment, which should mostly be paid for out of the Exchequer. These measures, hand in hand with the effect of public enlightenment, may be expected substantially to reduce the severe incidence.

§ 235. The moral aspect is not included in the reference of the Commission; its importance is none the less recognised. The value of the appeal to conscience and honour is enhanced by the terrible effects of the diseases on innocent persons and children. The growth of temperance is of great importance for the eradication of these diseases; their prevalence is also largely fostered by overcrowding. Such movements, however, are of slow growth, a good beginning must be made with immediate measures for dealing with disease that exists, constituting a most baneful factor in national life.

§ 236. But besides Government action, the matter must be constantly kept before the public mind, and the constant assistance secured of voluntary agencies which touch the same problems. It is hoped that the National Council formed for this purpose will become a permanent authoritative body, for spreading knowledge and giving

advice, and will be recognised as such by the Government.

§ 237. The presence of the war may possibly imperil the early carrying out of the recommendations, but the conditions now existing, and likely to exist after the war, imperatively demand immediate action. The total of infected persons—not necessarily in Army and Navy—has *certainly increased*. *The military provision is* excellent; but provision for civilians is urgently required, in view of the large increase of infection which is certain to come after the war. Such provision should be undertaken at once.

§ 238. Centres of treatment will not only be required where soldiers and sailors are collected, but in all large and some small towns. The claims of economy are realised, but this particular expenditure will be recouped by results.

§ 239. As to the needs of the future: the heavy losses of the best manhood of the nation must tell heavily on the birth-rate and on the numbers of efficient workers Venereal diseases also tell heavily in the same directions, and it is more imperative than ever that their effect should be diminished. Public health becomes of paramount national importance, and no short-sighted parsimony can be allowed to stand in the way of guarding the generations on which the restoration of national prosperity depends.

The Report is signed by the President and by all the members, subject, in two cases, to reservations, by Sir K. Digby and Canon Horsley.

Sir K. Digby dissents (1) from the opinion (§ 179) which advocates a thorough medical examination of all prisoners, involving local examination of women prisoners. He considers this neither practicable nor desirable. Nearly two-thirds of all women prisoners are committed for periods not exceeding two weeks, mostly for drunk and disorderly conduct, of which V.D. is a common adjunct. *If treatment were to be made compulsory*, such examination would be a desirable preliminary; but, if not, as is agreed, then such examination of short-sentenced prisoners is futile. It would also be resented. The advice of the medical officer himself, who gets to know the inmates, is likely to have a better effect than a compulsory examination in securing after-treatment. An exception is allowed in the case of young girls in the Borstal Institution, who admittedly ought to be cured before discharge. Here, however, the services of a distinguished lady superintendent have been secured as deputy medical officer; so that here the need seems to have been anticipated. As regards the great female prisons, no evidence has been brought.

(2) Detention of Poor Law Patients (§§ 176-7). The conditions in cases of these patients appear to be closely similar to those in the case of prisoners. If the detention of prisoners is impracticable, so also is that of Poor Law patients. The criterion of "freedom from disease" is equally difficult in the two cases.

(3) Organisation of Institutional Treatment. It is doubtful whether "the majority of hospitals will be willing to undertake this work" (§ 147). It is also doubtful whether local authorities will generally co-operate, though some larger ones will. It is, therefore, possible that in some areas the Local Government Board may be unable to work through either local authorities or hospitals. Perhaps, therefore, State institutions for V D. may have to be set up and kept by Imperial Funds. If necessary, such a system is justifiable on economical grounds alone.

Canon Horsley considers that a measure of Detention should be carried out with prisoners as well as Poor Law patients. Having worked in both, he thinks it more necessary in the former than the latter. He would copy the N.S.W. Detention Act of 1909.

SUMMARY OF APPENDICES.

This summary represents 120 folio pages in the original Report of the Commissioners; it is therefore very inadequate as a substitute for the original Appendices. But it was thought desirable to indicate the general contents of these documents, and to give short summaries of those portions which might be of interest to the general public or to practitioners —D. W.

APPENDIX I contains a memorandum by Dr STEVENSON, Superintendent of Statistics to the Registrar-General for England and Wales It is summarised as follows —

This writer explains the principles of the International List, saying that modifications could be adopted which would give special information as regards any given disease The figures now available, for syphilis, though having no absolute value, have a relative value, as showing its geographical, social, and historical distribution

Their absolute value is quite spoiled by the fact that certificates are not confidential; in all other chief European countries they are confidential, as it is here, practitioners will not certify death as due to venereal or other diseases which would offend the friends of the deceased Up to the present no prejudice attaches against certifying G P I., tabes or aneurism, which data are of great value; the statistical relations of aneurism suggest that it is connected with syphilis

Institutional certification is of more value than private, private suppression is shown by the fact that in deaths from all causes about 20 per cent are institutional, while in syphilis 40 per cent are so

In case of gonorrhœa only 22 out of 735 women dying of pyosalpinx or peritonitis were given as due to gonorrhœa, which ought to be given in all cases where it exists as the cause of death.

Geographical.—Large towns show the highest proportion, and rural districts least, in all diseases due to syphilis Wales and the Midlands are less affected than N and S generally. Excess of males over females is greater in town than country; deaths from infantile syphilis show greater urban excess than those from acquired disease. "Atrophy and debility" is clearly not mainly syphilitic, though probably containing much S There is no significant correlation between infant and adult S. in similar areas, nor between S, G.P.I and tabes.

[illegible]

On the whole the incidence diminishes in that order.

Infant mortality from syphilis was twice as great in urban as in rural districts, both in case of legitimate and illegitimate children, up to 1910; in 1911 and 1912, owing to the adoption of more accurate methods, the urban excess is shown as four times as great for legitimates, and eight times for illegitimates

Social.—Dividing the country into social groups, the highest and lowest groups seem to suffer most from S.; under "syphilis" the first class escapes registration owing to suppression of facts Textile, mining and agricultural workers are remarkably free; in the latter case probably from lack of means and opportunity.

Illegitimate children show a death-rate from S eight times higher than legitimate; this may be partly artificial

Textile operatives show a low adult but a high infantile death-rate.

Forty-five per cent of all infants dead of S are children of domestic servants.

Historical.—The only data with long records are "syphilis" and aneurism In aneurism they are complicated by difficulty of diagnosis; for tabes and G P.I. only 12 years' record is available Before 1875 there was a rise in both S and aneurism, steeper in the former. Since 1885 aneurism has been fairly steady, S has decreased Both facts point to a decrease during last 30 years, even in aneurism, because (1) diagnosis is improving, (2) there is an increase in proportion of institutional deaths since 1870 from 8 3 to 21 4; (3) there is an increase of urban proportion of population since 1851 from 50 per cent to 78 per cent, which would naturally tend to increase the incidence of S; (4) there is a simultaneous drop in army and navy returns

If institutional deaths from syphilis were in the same proportion to private cases as in other diseases, the present annual figures for S deaths would have to be increased by 800 or 900

Recommendations—The writer recommends that *still-births* should be registered, which they are not at present (*i e*, in 1914) He also thinks that *confidential certification* should be adopted here as in other countries, causes of death should only be available for the registrar and the local sanitary authority, it is important that no leakage should take place, or lack of confidence would follow; otherwise the certificate should only be available, where ordered in a court of law; this would be necessary for detection of crime Only the fact of death should be certified to the family, if at all; it should also be certified to the registrar, as well as the cause of death The only objection would come from the insurance companies, specially

[illegible] ... access to the cause of death

This paper also contains the figures for *England and Wales* as regards death-rates from syphilis, and the death-rates from debility and premature birth A table is also given showing the distribution of death-rates from syphilis, tabes, G P I, and aneurism among eight classes of the population Tables 4, 5 and 6 are inserted here as being of special interest

TABLE 4

England and Wales

Proportion per cent of Deaths in Institutions to Total Deaths, 1869-1912

Year.	Proportion Per Cent	Year	Proportion Per Cent.
1870	8 3	1895	12·5
1875	8 8	1900	14 6
1880	9 4	1905	17 6
1885	10·8	1910	20 5
1890	11 6	1912	21 4

TABLE 5.

Mortality of Infants from Syphilis, England and Wales.
(Deaths per 1,000 Births)

Year.	All Infants		Legitimate Infants.	
	Urban Counties	Rural Counties	Urban Counties	Rural Counties
1905 - -	1·54	·73	—	—
1906 -	1·47	·64	1·10	·43
1907 -	1·40	·80	1·11	·58
1908	1·44	·83	1·10	·60
1909 -	1·48	·73	1·13	·61
1910 -	1·34	·69	1·05	·49

Year	Illegitimate Infants		All Areas.	
	Urban Counties.	Rural Counties.	Legitimate Infants	Illegitimate Infants.
1905 - -	—	—	—	—
1906 - -	11·00	4·36	·93	9·71
1907 - -	8·75	4·72	·95	8·15
1908 - -	10·02	4·95	·92	9·22
1909 -	10·18	2·88	·91	8·64
1910 -	8·53	4·24	·88	7·37

TABLE 6

URBAN AND RURAL POPULATIONS.

Proportion per cent. to Total Population of England and Wales
(*Census of England and Wales*, 1911, *Vol.* 1, *p XVI*)

Census.	Urban Districts.	Rural Districts.
1851* - - -	50·2	49·8
1861* - - -	54·6	45·4
1871* - - -	61·8	38·2
1881 - - -	67·9	32·1
1891 - - -	72·0	28·0
1901 - - -	77·0	23·0
1911 - - -	78·1	21·9

* The percentages for these censuses are approximations.

APPENDIX II gives the figures for *Scotland.* (Dr. DUNLOP, Superintendent of Statistics to Registrar-General for Scotland)

APPENDIX III gives the figures for *Ireland.* (Sir WM. THOMPSON, M D., Registrar-General for Ireland)

APPENDIX IV. gives the figures of the *Royal Navy* for each year from 1905-1912, and other tabulated information as regards the Service (Surg.-Gen. MAY, C.B., R.N.)

APPENDIX V. presents the figures for the *Army* with percentages (Lieut.-Col. B. H. SCOTT). The Army is divided into (1) United Kingdom, (2) India, (3) Colonial.

∴ These sets of figures are all referred to in the text of this shortened report, and in the charts.

APPENDIX VI. is a memorandum by Dr. NEWSHOLME (Medical Officer to Local Government Board) (*a*) summarising the existing law as to *notification* and prevention of infectious diseases, (*b*) dealing with notification in general, both infectious diseases and tubercle, (*c*) notification of V.D., (*d*) organisation of treatment. Information is also given of all the facts with regard to ophthalmia neonatorum, and *a note on legislation on the subject of V.D. in the United States.*

The author's main views on notification of V.D. are as follows:—

1. Each medical institution should supply weekly or monthly statements of new patients suffering from specified diseases.
2. Notification of individual cases of disease is not in itself a sanitary measure, but only means to an end—prevention and cure. It is more effective in *e.g.* typhus and typhoid than in measles and whooping cough.
3. Notification of individual V.D. patients (either with or without names and addresses) would at present be neither useful nor practicable.
4. The first proposal would provide some statistics, and would enable enquiries to be made and any helpful action taken as regards, *e.g.*, meningitis and interstitial keratitis.
5. Notification of births makes possible important work in preventing syphilis. Specially true of dead births and illegitimate births.
6. If after fair trial of gratuitous treatment with ample facilities, it is found that *notification would help in prevention*, such notification might be started at public institutions.
7. Exact advice ought to be given to all patients on a form approved by the Royal College of Physicians. This might be made a statutory duty of the doctor, and should apply to gonorrhœa and syphilis in all stages.

The note on organisation of treatment deals with the proper use of all means at disposal, public and private, towards securing largely increased facilities for dealing with V.D.

APPENDIX VII. is a summary by SIR ARTHUR DOWNES of returns furnished by medical officers of *Poor Law establishments.*

APPENDIX VIII. likewise refers to *Poor Law infirmaries*, being a summary, by Dr. T. C. PARSONS, as regards venereal cases in London and the Provinces.

APPENDIX IX. gives statistics of venereal diseases in the *prisons* of England and Wales for five months up to March, 1914. (Sir HERBERT SMALLEY.)

VII., VIII., and IX. *are dealt with in the text.*

APPENDIX X. is a statement by Dr. SIDNEY COUPLAND and Dr. C. HUBERT BOND, Commissioners in Lunacy. Some points of special interest are as follows:—

At the close of 1912 there were 145 *institutions for insane*, exclusive of idiot establishments, containing 109,682 lunatics, of whom 46 per cent. were males and 54 per cent. females. Of admissions during the period 1908-12, among those whose history was known, 10.3 per cent. of males and 1.6 per cent. of females had definite history or *signs of*

S (acquired) Here also there is shown to exist a clear "urban excess"; seaport towns show a high incidence.

Of pauper admissions about 5 per cent. have a definite history of S , of these 60 per cent. were general paralytics; the total number of paralytics only form 6 per cent. of total admissions In this case, as also in gross brain lesions with a syphilitic history, the figures prove syphilis to be the cause. The converse is true in the cases of mania and melancholia Infantile forms of mental deficiency are, however, highly correlated with syphilis.

In syphilitics, attacks of insanity are preceded in a large number of cases by intemperance, destitution, injuries, degeneration of blood vessels, gross cerebral lesions, and mental stress

Out of 103,842 insane (four-fifths of all known in England and Wales) the ratio of general paralysis in males was 3 8 per cent., and in females 1 per cent.

The age period 25-54 covers 90 per cent of all paralytics (G P.I.) and 40 per cent of the total population During this age-period the proportion of male and female G.P I. to corresponding population is, for different areas —

	M	F.	
London	12 9	1 9	per 10,000 of population of similar age.
County Boroughs	8 3	1.6	
Administrative Counties...	5 2	.9	
Total (England & Wales)	7 1	1 2	

APPENDIX XI (Dr. F W MOTT, F R S) contains tables of *Insanity and Dementia Paralytica* (G.P I) in the London county asylums, 1911-12, comparing the incidence in Eastern and Western districts. The interesting point shown is that among practically equal population of E and W districts, the Eastern show 225 male G P I. and 57 female; the Western 303 male and 51 female; the proportion of males is greater in the West and of females in the East End The proportion of M. to F. is 6 1 in the West; 4 . 1 in the East; 5 1 altogether Of total admissions to the London county asylums, 8 per cent. are general paralytics; of male admissions over 15 per cent ; of female rather under 3 per cent. The male G P.I. admissions outnumber the female by 5 :1

APPENDIX XII (PAUL FILDES, M B., Assistant Bacteriologist, London Hospital Director, Prof. W. BULLOCH, F.R.S) On the prevalence of syphilis among apparently healthy adult inhabitants of the East End of London.

In order fairly to test the class served by the London Hospital, it was considered essential to take a random sample, *i.e* , to select persons who came to the hospital for reasons unconnected with syphilis Such persons, if syphilitic, are in a "latent" stage. Manifest syphilitics are comparatively few in proportion, and being excluded, the total proportion rendered of syphilitics will only be slightly smaller than the actual proportion.

They belonged to the "working classes," probably chiefly from the [illegible]

[illegible]

all cases of internal disease were excluded The persons taken were suffering from accidents, fractures, wounds, orthopædic malformations, tuberculous joints, hernia, varicose veins, etc. Some visitors were also included. Troubles of remotely possible syphilitic causation

were excluded, *e g*, attempted suicide. The samples of blood were provided voluntarily 1,002 persons were tested; they were ready to supply blood, but resented being asked about personal history The specificity of the reaction, as here carried out, is practically undoubted. Out of the 1,002 persons 84, or 8 3 per cent, gave positive reactions; 616 male gave 64, or 10 3 per cent, positive reactions; 386 females gave 20, or 5.1 per cent, positive reactions

The cases were divided up into age-groups, but Prof. K Pearson was of opinion that a much greater number would be required to establish a correlation between age and syphilis, which, if established, would be of importance. He considered, however, that the experiment showed that in a typical working-class London population 8-12 per cent. of males and 3-7 per cent of females at least have acquired syphilis.

APPENDIX XIII *Investigation by Sir John Collie*

2,274 persons, referred for medical report by large employers of labour, insurance companies, etc, were examined

98 were young women, mostly under 21, these were excluded from this survey The 2,176 men were as follows —

1 1,119 men reporting through accident or illness

2 557 men, apparently healthy, but requiring examination before employment No blood tests

3 500 of the same who submitted to blood test

In classes (1) and (2) 60 were found subjects of V.D, 4 had gonorrhœa; 10 had primary syphilis, 46 had secondary or tertiary S. Thus 3 4 per cent were syphilitic clinically

In class (3) out of 500, 46 gave positive results, or a percentage of 9 2 Of those who had been in Army or Navy 18 9 per cent were positive; of those who had not, 6 per cent were positive

The examinees were of a somewhat superior artisan class; average age 30-33, nearly all married The positive reaction showed in some as late as 12, 16, 19 years after infection, and in one as late as 29 years

APPENDIX XIV

Results of examination of *new patients at 14 asylums* during three months in 1914 Work undertaken by Lister Institute

275 males and 270 females were tested 21 3 per cent of males and 12 6 per cent females were positive or partial; total 17 1 per cent. Of these percentages G P I accounted for 11 5 and 2 9 respectively; total 7 3 per cent (Practically all G P I patients are positive)

The percentages of positive reactions and G P I in patients from various areas was as follows —

	Positive [including]	G P I
Urban	21 6	9 2
Urban-rural	15 0	6 2
Rural	10 7	3 5
Total	17 1	7·3

APPENDIX XV gives the results of DR MOTT'S investigations

1 *Demonstration of Specific Organism*

Among 100 cases of deaths from G P I, the spirochæte was found in 66 cases It is morphologically identical with that discovered in other stages of syphilis It occurs scattered all over the brain, but specially *in frontal regions It sometimes is hard to find*, but when a suitable nidus is found, germs are as numerous as in a primary sore They are doubtless present in all cases, but are easier to find in the early irritative than the late demented cases Dr Mott is not satis

of the existence of a sexual cycle; he thinks that syphilis is rather bacterial than protozoal in character; perhaps intermediate. It is, however, possible that there may be spore formation. There is no proof of any improvement in G P I. by salvarsan, either intravenous or intercranial; 10 per cent of admissions to London asylums are paralytics; hence the importance of treatment in early stages of syphilis. Three per cent of the cases of G P.I are cases of inheritance in young subjects

Of 25 cases of fœtuses sent from Shoreditch, the syphilitic germ was found in 12

2 *Biochemical (Wassermann) Tests.*

5,928 tests were carried out on blood and cerebro-spinal fluid of asylum, infirmary, and other (non-insane) persons 482 were post-mortem specimens 327 were confirmed by autopsy; positive reactions occurred in 98 per cent of G P 's, and in no non-syphilitic case was a positive result obtained Epileptics gave + results in 7.4 per cent ; insane non-paralytics gave 8 4 per cent These are probably not significant

Amongst insane admissions at Cane Hill (480 males), 10 per cent. gave positive reactions The highest percentage of positives occurs between ages 55-59 (26 per cent)

Sir John Collie's cases show 9 2 per cent of persons in apparent health with positive reactions

From three London infirmaries (1,483 tests), 20 per cent of cases were positive, with little difference between males and females

In the Shoreditch Infirmary (1,103 tests), 17 per cent were positive.

In the Westminster Infirmary (302 tests), 30 per cent. were positive

From Stoke Park Colony, the bloods of 257 feeble-minded children (age 3-14) gave positive reaction in 8 1 per cent.

The cases of mothers and infants tested at Shoreditch and St. Pancras are mentioned in the text of this book. At Shoreditch 71 cases gave 19 7 per cent (29 of the 71 were cases of illegitimacy; these gave 27.6 per cent , the remainder 14 3 per cent); At St. Pancras 90 cases gave 6 6 per cent.

Dr. Mott shows that practically all cases of G.P.I. give + reaction (98-99 per cent) with blood , cerebro-spinal test is not necessary

At Cane Hill Asylum, 284 consecutive male admissions gave 31 per cent , excluding G.P.I , 12.5 per cent. This indicates syphilitic causation of a proportion of the cases other than G P.I.

APPENDIX XVI.

Statistics furnished by various witnesses illustrating the effects of syphilis in producing miscarriages, still-births, infantile mortality, and diseased offspring:—

1. *Figures supplied by Dr. Mott.*

(*a*) Families of 34 syphilitic mothers

Mothers	Pregnancies.	Premature Births, Still-births, and Deaths in early Infancy	Children seriously Diseased.	Children apparently Healthy.
34	175	104	41	30

(*b*) Records relating to 22 married females suffering from tabes or tabo-paralytic dementia.

Women.	Number Sterile.	Still born, Miscarriages Premature Births	Children Died in Infancy.	Children Alive
22	7	49	10	10

(*c*) Families of married males suffering from tabes or tabo-paralytic dementia

Fathers	Children Still born, Miscarriages, and Premature Births	Children Died in Infancy.	Children Alive.
54	52	75	151

2 *Figures supplied by Dr Kerr-Love*

Records of 21 families with syphilitic histories

Families	Pregnancies	Miscarriages and Still-births	Deaths in Infancy	Children Alive but Deaf, or Deaf and Blind.
21	172	30	45	31

3 *Figures supplied by Dr Sequeira*

Records of families of 10 women attending hospital for late syphilitic disease of the skin.

Mothers.	Pregnancies	Miscarriages and Still births.	Children Died in Infancy	Children Alive
10	85	36	14	35

4 *Figures supplied by Mr McLeod Yearsley*

Records of syphilitic families in each of which there was one or more children afflicted with deafness or blindness and deafness

Families.	Pregnancies	Miscarriages	Died in Infancy.	Living Children	Deaf, or Deaf and Blind.
49	289	38	87	168	54

5. *Figures supplied by Mr. Bishop Harman.*

(*a*) Records of 150 families in each of which one or more children presented definite signs of inherited syphilis.

Families.	Pregnancies	Mis-carriages and Still-births	Infant Deaths.	Children Alive but Diseased.	Children Alive and Healthy.
150	1,001	172	229	390	210

(*b*) Records of 150 poor families in London—definitely known cases of syphilis excluded, but no special steps taken to ascertain presence of syphilis.

Families.	Preg nancies	Mis-carriages and Still-births	Infant Deaths.	Healthy Children.
150	826	78	94	654
Expressed per 1,000 preg-nancies	1,000	94	114	792

APPENDIX XVII. (Mr. N. BISHOP HARMAN) *Effects of the V.D of Parents on the Eyes of Children*

(1) Blind schools. (2) Elementary schools (3) School children attending clinics.

1. *Blind and partially blind* Causes ascertained by clinical examination and inquiry. *1,100* children examined

Group I.—Injury of cornea —

(*a*) Ophthalmia Neonatorum	266 =	24 0 per cent.
(*b*) Purulent conjunctivitis of later years	47 =	4.2 per cent.
(*c*) Phlyct Keratitis	38 =	3.4 per cent.
	351 =	31.9 per cent. of 1,100

Nystagmus is an important indication that the injury was inflicted within three weeks of birth, during which period ocular fixation is developed.

(*a*) Ophthalmia Neonatorum, when characteristic, is practically always gonorrhœal. Twelve diagnosed cases were found to be gonorrhœal by microscope. Four cases of doubtful diagnosis were found due *to other organisms.*

(*b*) Of the 47 cases of purulent conjunctivitis in later childhood, two were found gonorrhœal; both were sad cases of infection from babies who were being tended

(*c*) No cases of phlyctenular keratitis were found due to V.D.

Group II —Injury within eyeball or optic nerve:—

Front half of eye	(*a*) Interstitial keratitis, syphilitic	190
	(*b*) Interstitial keratitis, not certainly S .	14
	(*c*) Interstitial keratitis, tuberculous ..	7
	(*d*) Iritis due to syphilis	6
		217

Of this group of 217, 196 were certainly syphilitic, 14 others probably

Back half of eye

Choroiditis and optic atrophy, 222 cases, 126 or 56 7 per cent definitely syphilitic

The totals work out thus *among the blind school populace* —

Of 1,100 children blind or partially blind, 268 were due to gonorrhœa; 343 certainly, and 31 others probably, due to syphilis; 458 due to congenital defect, probably not syphilis This gives 24.35 per cent gonorrhœal, 34 per cent. syphilitic, or 58 35 per cent. in all, due to V D

A comparison with two former counts in 1904 and 1906 shows a great fall in cases of blindness due to ophth. neonat from 36 per cent. to 24 per cent, and a rise in the percentage due to syphilis from 18 per cent. to 31 per cent This is partly due to the reduction in gonorrhœal cases, and partly to better diagnosis; it does not probably indicate an increase in syphilitic blindness.

2 Incidence of eye defect in *ordinary elementary school populace.*

Here eye defects definitely due to G or S are rare; in 1903-6, out

disease, namely three in 4,400.

Among the general population, a large proportion of eyes are saved by the simplest precautions Out of 12,680 children born alive, such precautions being taken (mostly with boracic or clean water), 110 developed purulent conjunctivitis, but only six suffered permanent damage.

3 *Hospital child-clinics* Out of 1,958 children seen, 11 were affected with syphilitic eye-mischief, 6 with gonorrhœal About one-tenth of all school children go to a clinic at some time for defective vision

Conclusion V D affecting parents is responsible for over one-half of all cases of blindness in children

In relation to the total population the proportion is not large, but the effects of the diseases are masked by the heavy incidence of miscarriages, still-births, and early deaths among the affected populace

The effective treatment of parents would largely reduce the numbers of blind children

APPENDIX XVIII, by MATTANSCHEK and PITZ, of Vienna, on the "*subsequent life history of 4,134 cases of syphilitic infection*"

These were officers infected with S from 1880-1900 Apart from cases of parasyphilis and cerebro-spinal syphilis, 546 deaths occurred up to January 1st, 1912, the cause was given in 508 They were these Tuberculosis 147, suicide 83, heart disease following arthritis 37, muscular degeneration of heart 35, apoplexy 34, cancer 23, syphilitic-marasmus 20, aneurism of aorta 17, abdominal typhus 15, chronic kidney disease 14, pneumonia 14

The tubercle record is remarkable, as all had passed the fitness test for the Army, the suicides were not cases of syphilitic insanity. Two-thirds of the tubercle deaths occurred within 10 years of infection; deaths due to circulatory system mostly occur in the second decade after infection

Taking in all cases of deaths, up to January, 1912 (among the 4,134 infected),—

198 suffered from paralytic dementia.
113 „ „ ataxia (tabetic).
132 „ „ cerebro-spinal syphilis.
80 „ „ various forms of insanity
147 „ „ tuberculosis
17 „ „ aneurism
101 died or were attacked by muscular degeneration; (in 20, syphilis was the immediate cause of death).

The figures show that 12 per cent of these persons infected with S have died or become seriously ill from its effects, if arteriosclerosis is included, *14 6 per cent The great majority within 20 years of infection* The records of the Gotha Insurance Company show a mortality between ages of 36-50 of nearly double the average rate. Other insurance companies show a syphilitic mortality at all ages of 30 per cent above average

APPENDIX XIX *Syphilis at Glass Bottle Works* (E BREFFIT AND CO, LTD) The blow-pipe at such works is passed from mouth to mouth The Owen machine (very unpopular with the men) disposes of hand labour to a large extent

At these works (in Yorkshire) about 600 men and boys are employed In 15 years there have been four outbreaks of syphilis detected, some, no doubt, have passed undetected The same conditions apply almost certainly to every glass-blowing works in the country, the worst feature is the danger to boys of 15-18 years old The doctors who examined the men made suggestions (*a*) That warning notices be put up in the works, (*b*) that each man should have a separate mouthpiece; that it be made a criminal offence for a man to work at glass works whilst suffering from syphilis or other infectious V D.; that each blower should produce a certificate of good health monthly, signed by the appointed surgeon

APPENDIX XX. (DR. F. W. MOTT) *On diagnosis of V.D by laboratory methods.*

The three postulates necessary to prove a specific cause of an infectious disease are: (1) Same micro-organism demonstrated in all stages of disease; (2) characteristic modes of growth outside of body; (3) communication to animals by inoculation of tissues or cultures These postulates are not fulfilled in the case of Ducrey's bacillus (soft chancre), but are fulfilled in G. and S

Besides the demonstration of the specific germ, there is the bio-chemical test of infection. When any infection spreads in the body, a defensive mechanism is set up This produces a condition of the blood which may, under certain conditions, be tested by the "complement fixation" method

The spirochæte of syphilis is a corkscrew-like organism, with many closely-placed spirals; these spirals are present both in movement and repose Wherever it lodges, in any tissue or organ, it produces a characteristic inflammation The original sore may be diagnosed as syphilis by the microscope, while still no larger than a pin-head, which is impossible clinically. This is the time to diagnose and start treatment The examination of exudates is made with dark-ground illumination (best) or with Indian ink. Either shows white spirals on black ground. The organism can be seen alive many hours after collection of the specimen; it is still characteristic when no longer motile The bio-chemical test (Wassermann) will not react till 15 days or so after the appearance of the sore The discovery of the spiro-

chæte is proof positive; its absence on a specimen is not proof negative, and should be confirmed later by Wassermann

Spirochætes are readily demonstrable, not only in the primary sore, but in all secondary mucous lesions, generally in great numbers The organism may be seen active 18 hours after withdrawal from the body hence the likelihood of indirect contagion. Sores on the fingers of doctors and midwives ought to be examined at an early stage

Noguchi's luetin reaction consists of injection into the arm of a sterilised culture. When the reaction is negative, a slight redness appears in 24 hours and disappears after 48 A positive reaction is papular, pustular, or torpid. These lesions persist from four days to some weeks The reaction is absent or slight in the primary and early secondary stage In congenital S and in the later stages of *acquired syphilis it is well marked* Noguchi claims that this test shows syphilis in the latent or chronic stage where there is a negative Wassermann

The *Wassermann test* is done on blood removed from a vein in the arm, or on cerebro-spinal fluid The latter may give reaction when the blood does not In the blood, positive reaction disappears with treatment, it seldom disappears from the cerebro-spinal fluid In syphilitic nervous affection this fluid shows lymphocytes; not in other disease Wassermann's test, used quantitatively, is a useful guide to treatment

[The description of the principles of the "complement fixation" test is not suitable for abbreviated reproduction Students are referred to the original appendix or to some other textbook]

APPENDIX XXI is the Preliminary Report of the Royal Society of Medicine (Pathological Section) on the *methods of carrying out the Wassermann reaction*

The original Wassermann method is described, and various modifications or "short cuts" of (1) Fleming and Hecht, (2) Emery and Stern, (3) Birt

The Committee is of opinion that these shortened methods are not suitable for the general replacement of Wassermann's original method Stern's method is said to be more "delicate," *i e*, to detect smaller quantities of antibody, than the original method, but, for diagnosis, this can be overdone, as the antibody, not yet clearly understood, *may* be present in minute amounts in normal blood "Delicacy" is required in testing for treatment, but can be equally easily obtained on the Wassermann principle The Wassermann method is recognised as empirical, and it may be reduced, with better knowledge, to a simple chemical test Pending further knowledge, the Wassermann method is the best for general use

APPENDIX XXII gives the *results of treatment in the Navy*

The total number of cases treated in 2½ years at Chatham, Haslar, and Plymouth were 4,203, total injections with salvarsan or neo-salvarsan, 9,912 The time between injections was at first about eight days; now a month Mercury was given for three months after salvarsan 1, 2, or 3 injections of salvarsan were given, results improving with number of injections (3 injections each)

Among 1,169 cases —

Treated in primary stage	Result	82 5	per cent neg
,, secondary stage	,,	62 9	,,
,, tertiary stage	,,	35 4	,,

Among 575 cases —

Treated in early primary stage	Result	100 0	per cent neg
,, later primary stage	,,	78 0	,,
Treated during first year	,,	83 0	,,
,, after first year	,,	36 0	,,

Of the negative cases 11 per cent. were, after 4-20 months, found to relapse by Wassermann, and 3 2 per cent. clinically. These are both under-estimates of relapses that actually take place; all tertiaries have Wassermann relapse after a time Three deaths occurred; one was complicated by diphtheria. This shows that, if taken at the earliest stage, practically every case is cured, though a percentage of later relapse may occur.

Mercurial treatment by itself does not show nearly as good results. The form of mercurial treatment makes little difference if properly carried out Only about 25 per cent. of cases at any period become negative. Clinical relapses are thought to be five times commoner with mercury than with salvarsan.

In the naval hospitals there is no evidence of different results [illegible]

[illegible] has been nearly halved

The total cases of syphilis in the same periods have fallen from 5,659 to 4,102; the incidence relative to strength has fallen by one-third.

Extra-genital chancres are rare. Of cases admitted as chancroid, five-sixths proved syphilitic. Some of these may have been mixed infection

APPENDIX XXIII *V D and its treatment in the Army* (Col GIBBARD, R.A M.C.)

The chief causes of decrease of V D in the Army are —

(1) Improved methods of treatment
(2) Lectures and talks to the men.
(3) Increased temperance
(4) More attractions in barracks; reading rooms, sports, and facilities for recreation.
(5) In India the decrease may partly be due to the Cantonment Acts But the decrease affects native troops as well as British, and in similar proportion; disease has always been far rarer in native troops, who are mostly married and who drink less.
(6) Better education, in view of higher standards required for promotion

The first two are considered the most important causes of improvement Similar things may be expected to improve conditions among civilians, chief of which are:—

(1) Lectures for enlightenment of public.
(2) Temperance
(3) Early diagnosis and treatment

Lectures in towns are most important, where sheer ignorance is largely the cause of disease being contracted The Army figures in India show a decrease closely following the decrease in use of *alcohol;* there the daily consumption of beer per head of drinking men [illegible] ratio of alcoholism [illegible] (per thousand) [illegible] shown by the [illegible] lis showed 11.4 per cent. of relapses; 130 cases of secondary gave 33 8 per cent. Most of the 11 4 per cent. were blood-relapses, not clinical A later record of 62 primary cases shows still better results, with no clinical relapses and only three blood relapses

Formerly most men did not seek treatment till the second stage (five secondary to one primary); through instruction to the men this has been reduced to equal numbers The fear lest syphilis may come to be regarded as easily cured, and hence trivial, is not justified by experience Patients are made non-infectious in one to two days The methods of diagnosis are (1) the finding of the spirochæte, and (2) the Wassermann test.

An instructive table compares the results of the use of mercury alone in 378 cases, and of salvarsan and mercury in 152. The percentage of relapses is 33 per cent. in the first; 3 9 per cent. in the other. The average time lost per man was 84 and 41 days respectively, days in hospital, 66 and 25. 3,000 intravenous injections of salvarsan have been given without any fatality Doses are given at intervals of a month, with mercurial injections between

Early treatment is as necessary in gonorrhœa as in syphilis

[Col. Gibbard makes other recommendations for treatment and instruction of the public, which are reflected in the Report.]

APPENDIX XXIV *Gonorrhœa and urethritis* (MR. FRANK KIDD, F R.C.S.) Summary of 180 cases—100 private and 80 hospital patients. Implantation occurs, in men, just inside the urethra, and is practically always caused by coitus Incubations averages 1-7 days They are infectious during this time, but do not suffer pain This leads to much spread of infection; of 24 married men six had given it to their wives in this way. The discharge from the urethra is nature's attempt at cure; in a small percentage it is successful, but this is exceptional In the majority (58 per cent. of 180 cases) the disease spreads upwards till it reaches the neck of the bladder On its way it invades the prostate, seminal vesicles and testicles The glands also of the front part of the urethra and the surrounding tissues are invaded Hence it is impossible, if the disease is allowed to reach this stage, to cure by urethral injections alone

If left to himself the patient feels ill from five to eight weeks, with local inflammation After this, there is little pain or discomfort, but in the great majority the chronic stage supervenes, with no pain, but [illegible] arge may again become [illegible] due to the gonococcus [illegible] ain when a favourable [illegible] earance of cure, is the [illegible] the population Thus also the individual cure of gonorrhœa, or its elimination from a populace, is far more difficult than that of syphilis, efficient treatment may take many months, and great skill is required to insure freedom from infection Out of 100 private patients, 25 came in the chronic stage, with an average history of 54 months duration (13 years to 11 weeks), yet all were cured by modern methods in a few months. In some few cases the infection does die out naturally in about two years after infection

It is hard to bring patients to treatment, on account of ignorance of the facts and current traditions

Complications Eye Ophthalmia neonatorum This is on the decrease since the practice began of washing the eyes of the new-born with silver nitrate In adults it is much less common, but disastrous when it occurs Of 200 infants treated for this at the London Hospital 48 went out with damaged eyes, and five died This affection is pitiable in innocent infants Iritis is another complication of gonorrhœa (1 per cent)

Joints In about 5 per cent of cases the germs pass into the blood and invade the joints This is most acute and painful, and on subsidence is apt to leave stiff and crippled joints At a reasonably

early stage (one case of even four years) proper treatment can cure It is often dependent on gonococci lurking in the seminal glands Very many cases of this sort of "rheumatism" go undiagnosed both in men and women

Sterility. This is rare in males. It may result from affection of both testicles In 180 cases 15 per cent. had single and 2 per cent double epididymitis In females sterility is a far commoner sequel Of 3,500 cases of women operated on for ovarian inflammation (figures by Norris) it is considered that nearly 70 per cent. were the result of gonorrhœa In addition sterility occurs from salpingitis, which does not need operation.

Stricture The scarring of the urethra in the male leads to closing or narrowing of the tube after the lapse of time Such stricture is rare in the female urethra In ten years the London Hospital admitted 894 cases of stricture, and two other hospitals 876 These are only the severer forms of stricture; slighter ones are very common. Stricture induces back pressure through the ureters, which destroys the kidneys The process may take 10-20 years before a fatal issue

In a proper clinic early strictures can be permanently cured in a short time. In England they are not as a rule carefully treated.

Immunity One attack of gonorrhœa confers no immunity, and a large number of persons contract it several times

[illegible] Mr Kidd's cases, 30 had applied [illegible] vith on old-fashioned lines It is [illegible] ive people something better than [illegible] treatment. Private cases come [illegible] Kidd's private cases cure was accomplished in an average of 5½ weeks, hospital cases, 10 weeks The attitude of patients is important, private cases are anxious for cure, but only about one-half the hospital cases The careless cases want a good almoner system The average time off work on account of G. appears to be rather over 20 weeks Alcohol has been a predisposing cause in a considerable percentage

Marriage Any infected man ought to be properly tested before marriage Much ruin to households can thus be obviated. Private patients are ready to obey the doctors' warnings in this respect While infection of a bride is fairly common, vaginal discharge may result from the first marriage rite, without gonorrhœa; this may even last a long time Gonorrhœa is sometimes wrongly suspected

The study of urethritis is slight in England compared with Germany, France and America. There is less demand here, and specialists are rare. The same is generally true at hospitals, where the disease is little studied. Irrigation in the early stage is most important; the old-fashioned medicines by the mouth do not stop the ascent of the disease The use of injections, however, needs judgment and experience

The methods adopted in clinics abroad are explained, and recommendations made for hospital clinics in this country

Vaccine treatment is thought, in the acute stage, to do harm in many cases; later on its value is not certain. Its use cannot be depended on

In both prevention and cure the attitude of parents and wives of the patients is most important; frankness and fearlessness prevents both concealment and the spread of infection to others.

Prevention. It is of the greatest importance that preventive measures should be employed at once, where exposure has taken place They are simple and effective A corresponding method has now for long been adopted with children's eyes at birth.

Notification Mr. Kidd is a strong opponent of notification Properly-given advice is much more effective, and by this means the infecting woman is often got hold of and cured This ought to be done—voluntarily—at hospital clinics

"Sick Benefit" ought not to be denied to patients, if still denied to individuals, it ought to be used for the founding of special hospital clinics

The development of such clinics is of the utmost importance, practitioners would gradually learn to treat the disease, and when facilities are adequate, quackery could be suppressed Such clinics ought to be at general, not special, hospitals

A scheme for the development of such clinics is outlined, and at the London Hospital, where such a clinic now exists, the keenness of students to learn is surprising

The treatment of women is even more difficult than that of men, only by similar means can it be compassed Women also should have special clinics at general hospitals

Modern surgeons can only keep up to date in one branch of surgery this is one of the branches which needs a surgeon's whole time and study

APPENDIX XXV Notes by Dr JOHNSTONE on towns which have no hospitals with laboratories available This relates to certain special localities, and methods are suggested for overcoming the existing difficulties

APPENDIX XXVI (Sir DONALD MACALISTER, K C B, M D, Principal of Glasgow University and President of the General Medical Council)

Sir Donald MacAlister defines the powers of the *General Medical Council* and explains its practice, he generally expresses the view that the various examining bodies require and obtain an adequate knowledge of these diseases from students and examinees

By the Medical Act, 1858, the G M C is empowered to require the licensing bodies to furnish it with information as to the studies and examinations required by them, their representatives may attend the examinations

If they are dissatisfied, they may represent to the Privy Council, who in their turn may decline to register the unsatisfactory qualification Such an order, however, may be revoked

Under the Medical Act, 1886, medicine, surgery and midwifery were unified for qualifying purposes, and students must qualify in all three before practising in any The G M C retains similar powers as under the 1858 Act If necessary the Privy Council may itself take the initiative in objecting to any given qualification being registered, and may even override the G M C, if it refuses to act

The G M C has two standing committees, one on education and one on examinations It obtains returns of examinations and periodically inspects them; it prepares reports and submits them to the licensing bodies with such recommendations as are thought fit

Reports show that questions on syphilis are set with such regularity that students cannot fail to be aware of the importance attached to it

The G M C is composed of about 35 members, one from each university, one from each medical corporation, six from the registered practitioners of the three parts of the Kingdom, and five appointed by the Crown

Registered practitioners all over the Empire come under the G M C, except in certain Canadian provinces Otherwise there is complete reciprocity.

The G M C has never reported insufficiency of any examining body now existing; it has made representations which have been followed; this becomes easy since the bodies are represented on the G.M.C.

The G M C is to supervise the standard of proficiency in all three subjects, or *any branch of each*, so that they can initiate or strengthen any special subject

The supervision of examinations is carried out by inspectors (not members of G M C) and visitors (members)

The G M C. has powers to strike out names from the register (1) for misdemeanour or felony, (2) for infamous conduct in a professional respect The G M C sits as a court, but witnesses are not on oath

Teaching on V D is in general adequate, but not every school supplies it; at some schools students must go elsewhere, since the examinations make it necessary There has been great advance in teaching, any student ought now to know how to obtain material for miscroscopic examination or Wassermann test, and can place patients in competent hands

APPENDIX XXVII. is a memorandum by the Prime Minister of New Zealand, indicating the potentialities of existing regulations for improvement in the treatment of patients in New Zealand; it also delineates the powers of detention of certain persons under section 19 of the Hospital and Charitable Institutions Amendment Act, 1913 This section runs as follows —

Hospitals and Charitable Institutions Amendment Act, 1913

Section 19 —(1) The Governor may from time to time, by Order in Council gazetted, make regulations for the reception into any institution under the principal Act of persons suffering from any contagious or infectious disease, and for the detention of such persons in such institutions until they may be discharged without danger to the public health.

(2) Any person in respect of whom an order under this section is made may at any time while such order remains in force appeal [illegible], and [illegible] nd to [illegible] of a [illegible] apply [illegible]

APPENDIX XXVIII is a memorandum by Prof. BLASCHKO, of Berlin, concerning *V.D. in Germany.*

Prevalence in any country can only be calculated indirectly, even when notification exists In Germany some data have been given by occasional enquiries Such enquiries took place in 1900 (Prussia), in 1909 (Frankfurt), in 1913 (large towns of Germany). There are also Army and Navy figures, sick fund figures, and data of sick prostitutes The figures of 1900 showed a return of 18 5 per 100,000 adult population for all Prussia, but 93 5 for Berlin. In each case three-fourths are men, one-fourth women V.D. is rare in rural districts, and its prevalence bears direct relation to the size of towns. The same fact appears among recruits for the Army, Berlin recruits showing five times the average amount of disease Among German recruits as a whole the figure is about 7 5 per thousand; in England below 5. Prevalence in practically all countries is twice as great in the Navy as in the Army. The German Army has a prevalence lower than any other in Europe (England 66 per thousand, France 28 per thousand, Germany 19 per thousand) This is attributed to hard work and low

wages; the Navy has more chance of licentiousness In the civil population of Germany disease is commonest in prostitutes, but [illegible] It is common in the upper classes [illegible] being practically unknown, and [illegible] "Illicit intercourse is almost [illegible]ty in Germany" The figures of 1913 show 180,000 fresh cases of disease in Berlin for the year (65 per cent G, 24 per cent S) Parasyphilis (fresh cases) shows 2,000 per year; the annual toll of parasyphilis in men only is about 8 per cent of that of recent syphilis in men The proportion of men to women (G P I) is about three to one

The figures for infected recruits in Germany suggests that the incidence of V D has not increased during the past ten years

In spite of the Armies' figures, Prof Blaschko believes V D commoner among civilians in Germany than in England The English Army prevalence is attributed to the greater liberty and higher wages of the English soldier; the comparative freedom from V D of civilians in England is attributed largely to suburban life, which does not exist in Germany

German Penal Code provides penalty for purposeful or careless communication of disease, but it is practically inoperative, compulsory treatment does not exist except for soldiers and prostitutes

Treatment in Germany depends largely on the insurance bodies, the majority of the adult population is insured Till 1904 venereal cases could not draw on sick funds; now they can Skilled treatment is, in practice, easily obtainable, coitus and marriage are forbidden till declaration of freedom by the doctor The insurance bodies organise public lectures, etc, and take a large hand in the work of the German Society for Combating V D Through this society's efforts, the hospital accommodation has been greatly improved and is supervised by specialists Thus 56 German towns, with 15,413,000 inhabitants, have 9,320 beds and 834 specialists Among women patients, prostitutes, domestic servants and factory girls head the list of disease, in the proportions of about 4, 2, 1 Owing to the provision of treatment, quacks do not flourish as much as before, but still drive a large practice Unqualified practice is not yet penalised

Prostitutes Regulation exists in all larger and smaller towns in Germany, but its methods vary Inscription of prostitutes is voluntary in the South, compulsory in the North Brothels are forbidden by law, but in many places they are tolerated and in some enforced It is questionable whether regulation is allowed by law, but it exists The German Society for fighting Venereal Diseases was started in 1902; the objects are (1) to provide enlightenment of the public, (2) to discuss problems, (3) to co-operate with legislative and administrative bodies A description is given of the methods and work of the society Among its educational methods are counted travelling exhibitions The society has largely changed public opinion on the subject

APPENDIX XXIX *Venereal diseases in Denmark*

80 per cent of all V D in Denmark occurs in Copenhagen, with 500,000 inhabitants There is little real poverty here; wages are good; education is of a high level Hospital facilities are ampler than in any town in Europe, payment by patients is made for ordinary diseases of about 1s a day, or 6d for insured persons, the great majority of persons are insured Secrecy as to names of V D patients is strictly observed About one-fifth of the women V D patients are sent for compulsory treatment, this number is decreasing

There are three public consulting rooms (which were started prior to 1906) for cutaneous and venereal complaints; two are open [illegible] the

morning, one in the afternoon, and one in the evening. Patients are many and poor; mostly old cases.

Since [illegible]
cipal d [illegible]
V D [illegible]
rest m [illegible]
various [illegible]
attend regularly, if they do not, they may be notified to the Board of Health, and can be compelled to [illegible]
annually Fournier's mercury m[illegible]
and results as a whole are good, [illegible]
Salvarsan may produce still better results

Of private specialists there are about 20, there are other advertising "specialists" of little education But mistreatment is rather rare.

Denmark and Norway are the only countries which attempt statistical returns All private practitioners and hospitals report all their cases to the Board [illegible]
filled in badly or not at [illegible]
found to require much [illegible]
Thus the returns are rea[illegible]
1912 show 670 soft chan[illegible]
figures are thought by Dr Svend Lomholt to be overstated—about twice too many in case of syphilis. Here the crude numbers, which Dr Lomholt criticises, show an apparent increase since the Act of 1906; this is used by some people as an argument in favour of regulation of prostitutes; but the phenomenon—even if the figures are correct—has another obvious interpretation, viz ; an apparent increase owing to free treatment The cost to the municipality is about £2,500 a year for the work of the 12 doctors

APPENDIX XXX. Statement by the American Hygiene Association regarding the *measures taken in different States of U.S.A.* regarding V.D.

Eight States and seven cities make V.D reportable to health offices.

Seven States and ten cities provide equipments for certain tests.

Five States and five cities have issued pamphlets, cards, or other publications.

One State and six cities have made special provision for V.D. in hospitals and wards

Seven States have laws making V.D. a bar to marriage.

Three States require a medical certificate prior to the issue of marriage licence

One State (Iowa) inflicts a severe penalty for knowingly transmitting V D to another person (Fine up to $500 and imprisonment up to one year.)